Handbook of

ACCOUNTING METHODS

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PREFACE

This is a revised edition of the *Handbook of Accounting Methods*—which had its first appearance in 1943. Down the years this book has found a very gratifying acceptance by all manner of the fiscal breed.

Like three companion volumes done in the intervening period, this book is devoted to the accounting problems of particular businesses. The others are *Handbook of Auditing Methods*, *Handbook of Cost Accounting Methods*, and *Handbook of Tax Accounting Methods*. In each case, the effort has been to get as many experts as possible to tell the story of good practice in their field. Out of this has come, I hope, the means to furnish the financial advisor with an over-all plan to guide his strategies for each type of industry.

This book talks only basic accounting systems. You'll want to refer to the three companion volumes for much that could not be adequately covered in this kind of manual—for example:

- The specific method to use in the audit of particular businesses.
- The frauds normally encountered in them—and how the accountant moves to block them.
- The manner of adopting costing to insure it is being used as the best possible tool for better management, better pricing, and better wage policies.
- The tax mechanics of particular businesses—the usual, the variations, the shelters, and the traps pertinent to each industry.

The job in each of the books has been to get a seasoned practitioner to detail the story of a business in which he has had considerable personal experience. The four books, I believe, provide a tool for use by all of us to handle intelligently the task we face daily.

This revision is an updating of practices—much as a result of the widespread changes in business, tax, and accounting thinking during the 10 years that have elapsed since the first edition.

Moving through these four volumes of analyses of industry practices emphasizes that industry-by-industry study is essential for all of us in accounting. Procedures in costing, taxes, auditing and accounting are incredibly different and ever changing—even though they do stem from the same body of fundamentals.

So I think we shall have to keep up this procession of idea-caravans endlessly, telling the tale of common incidents of each type of business.

I hope this volume serves that purpose.

J. K. Lasser

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SECTION I

WHAT WE SEEK IN ACCOUNTING SYSTEMS

WHAT WE SEEK IN ACCOUNTING SYSTEMS

This book is a compilation of the best accounting practices used in 85 businesses. The records kept, and the reports made, are (you'll find) as varied as are the businesses themselves.

And yet all these systems, records, and reportings fit into a general pattern built in the modernization of accounting. Today, accounting is far more than a method to get a recording and to help in safeguarding of business transactions. Over the years it also has found the way to serve well as a real aid to business planning and control. We get the help if we make sure the system:

Gives the figure results clearly, quickly, and with full explanations of what has occurred by daily, weekly, monthly, and annual reports of facts—swiftly, continuously, and accurately.

Permits quick comparison of accomplishments with prior year's figures.

Quickly redflags all variations from the ratios and standards we set up to be essential for profits.

Is designed to deter employee frauds, wastes, errors, and spoilage.

Permits prompt filing of accurate reports and tax returns required by Government.

Is set up to help develop an efficient sales policy—for example, the concentrating on the more profitable sales.

Helps in purchasing, controlling stock, finding the cost of distribution, finding the best markets for profits, and steering the promotion and selling efforts.

So our first job in accounting is to determine net profit, net worth; build financial statements; get the basis for credit; help prepare income tax returns.

But this is only the beginning of the job. Our records and reports must be designed as a guide to control business operations throughout the year. This comes by our sophisticated accounting of analysis of sales, costs, stocks, margins, expenses—everything else—and through daily, weekly, or monthly reports.

This book, to restate, is a statement of the general nature of the systems and controls devised by the experienced accountant. The only purpose of this preliminary section is to outline the *principles* sought in most systems. To do that, we've incorporated *elementary* notes describing the following:

How periodical reports are designed to service best:

The report form must be governed by the person served.
The most common reports are the balance sheet and operating statement.
Unit cost analysis is of great importance in periodical reports.
Financial and operating ratios are very useful.
Ratios used in reports ought to be compared regularly to standards.
Uniform accounting should be encouraged within each industry; that helps us produce useful reports for management.

Budget design can aid efficient management:

How to adopt budget practices.
Types of budgets to set up in various businesses.

Other principles sought in system design:

Product costing and plant studies.
Distribution system studies.
Fixed asset management system studies.
Purchasing, inventory, and related systems.
Systems to protect against employee frauds.
Tax accounting correlation.

This recitation is but a fraction of the material that might be presented here—if we are to talk about the elementary side of system design. It is left with the reader with this caution: These notes, if inviting, are only random thinking on a subject that can be exhaustively studied only in a book this size.

And the book has a much more important job to do in describing the accounting mechanics of particular businesses.

HOW PERIODIC REPORTS ARE DESIGNED

Report Form Is Governed by the Person Served

Efficient management demands an adequate accounting procedure. Part of the basis of good control is information—quickly and properly gathered and interpreted. An accounting system does far more than merely pile up essential data. These are often secondary to its primary function.

Reports are designed to reach the mind of some intelligent human being to aid him *quickly, fully,* in his job. To be of most help, the content of the report should govern the form. So we use every method—charts, graphic methods, and symbolization—to present and interpret information. Our form of reports should—

Be as simple as the data we want to show will permit.

Be clear and unambiguous. Headings, capitalization, underlining, marginal captions, and similar devices should be used to aid the language.

Use graphic devices to supplement tabulation and verbal descriptions.

Be readily useful for comparative purposes.

Have a table of contents and even an index when the size of the report justifies them.

Considerable care gets integration between the accounting system and reports this way: we design (1) mechanics of recording, and (2) posting records to lend themselves to: automatic production of the daily or other balances to be entered on reports; sufficient self-checking features to insure report accuracy. Poor integration gets a disproportionate amount of recasting of figures. That makes for waste of time and effort; it will increase the opportunities for error.

Periodic reports are designed so that they synchronize with *prior* to *future* reporting. Thus the daily reports are made to combine into the weekly reports to avoid doing the work over again. Weekly data are accumulated to form the monthly report.

How the Balance Sheet and the Operating Statement Are Designed

The operating statement lists the dollar amounts of income, expenses, and profit for a period (day, week, month, or year). To be more useful, it should have:

Enough detail to bring out all the principal elements.

Be organized to furnish sufficient summaries in a quick, clear picture.

Show figures—in, say, a monthly report—for the month and year to date, the same periods last year—then comparing all data with the budget for the month and year to date.

To be effective for executive guidance, a separate operating statement must be made for *each* unit, or each department of the business. The top profit and loss statement of the company might be a very condensed report—giving the full result. *The details can then be presented for each unit or department separately.*

To get this separate picture for each unit, the accounting system must be set up to separate accurately the income and expenses of each. General overhead and other expenses—which serve several units—jointly are allocated on an equitable basis.

Under each of the expense headings, there is shown only the items the management finds genuinely helpful—no more. The detail desirable to put into the statement varies greatly in different companies. That depends on the size and character of the unit—the size of the whole business—the particular methods that the management uses in budgeting and controlling its business. Here are practical guides:

Avoid putting too much detail into the operating statement. Excess confuses the picture—makes it harder to see the important points. It also adds unnecessarily to the burden on executive time. It is preferable to have the entire statement for each unit on a single sheet of paper. To accomplish that, you must condense the detail of those income and cost items into the most important elements.

Management seeks a brief, easy-to-read monthly summary. It wants one that shows (1) where the business is going, and (2) gives early warning when any particular part of the operation is beginning to get out of line.

Accounting departments' ledgers should contain the rest of the detailed breakdowns of income and expense. It is usually not desirable to put them on the operating statement. The accountant simply combines expense accounts into single items on the statement. This gives depth and flexibility to the cost information. We make it easy for the executive to call on the accounting department for detailed information on any segment of costs. The accounting department must be geared to have the details readily available.

Abbreviation of expense items on the operating statement brings another advantage: analytical and comparative information on income and costs can be put into the regular statement without adding too much to its length. Unit costs, ratios, and comparisons are often far more useful tools for sales and cost control than are dollar figures.

Percentage change in each of the items on the latest report and the percentage change from the last previous statement.

Percentage distribution of the total liabilities and net worth among the several items in those categories.

The percentage distribution figures for two or more dates.

The combination of these enables us to analyze statements readily for the nature of changes. They show whether current assets have grown or decreased in proportion to total assets over several years in comparison with proportionate changes in current liabilities.

Another report showing over-all trends is sometimes called: *"The Summary of Resources and Disbursements"* or *"Statement of Application of Funds."* This is an easily prepared report to show where the business is heading. It requires no new figures—simply the drawing off of the increases and decreases between one period and another from the balance sheet. It is self-balancing and carries its own proof. It is an excellent tool of management and is applicable to practically any type or size of business.

Next most common report found in business is the daily cash report. Management is almost always interested in knowing the cash position:

It enables the executives to keep their fingers on the pulse of the day-to-day operations.

Sometimes there is a need for close control by the treasurer. Where working capital is being stretched, day-to-day fluctuations require very accurate scheduling of receipts and expenditures.

The form is very simple and easy to use, and it yields a wealth of information on cash trends for day-to-day or longer periods.

Unit Cost Analysis Is of Great Importance in Reports

By it, important controls of many activities are secured. Most businessmen understand conditions more readily—when comparing results to preceding periods and the budget—if they are expressed in terms of the cost of units of sale. Comparison of a cost of $1,000 a month to another of $1,500 may be meaningless. But if both are expressed at a cost of so much per customer secured, or piece produced, there is a common base that encourages study.

Let's use an example to show how that is done in one business—magazine publishing. Here monthly unit cost data quickly guide executive review of operations—when they are compared to results of prior period budgets or other standards. The data include the

following type of reporting—readily developed from accounting records—usually submitted with the weekly or monthly operating statement—

Production Cost Reports for Each Issue or the Month's Issues:

Record of the number of issues, copies printed, editorial, advertising, standing pages and color pages, etc.—and the number of M copy pages.

Average cost of page—sometimes divided into cost for editorial and advertising pages and into the cost per page of composition, printing, binding, paper, postage, or other delivery costs.

Average cost per copy per thousand copies printed (sometimes broken up into detailed groups suggested above).

Editorial Cost Reports of Each Issue or the Month's Issues:

Number of editorial pages.

Per cent of total income or advertising income spent for editorial expenses, such as—

Salaries, traveling expenses of editors
Contributions by others than staff
Art work, photos, engravings, and other preparation costs
Office expense

Cost per editorial page for each of the foregoing.

Advertising Cost Ratios Reports of Each Issue or the Month's Issues:

Record of the number of issues, copies printed, and advertising pages.

Relation of advertising pages to total pages.

Advertising income per paid page net of agency commission and discount.

Advertising income per paid page per thousand distribution.

Number of advertisements.

Size of space per advertisement.

Percentage of the advertising income spent for—

Salaries, commissions and traveling expenses of salesmen
Expense of the sales office organization
Publicity and promotion to get business
Art work, engravings and service for advertisers
Bad debts and collection expense

Cost per page of advertising for each of the foregoing.

Ratio of costs for individual salesmen or for sales territories to advertising billings or collections—i.e., ratio to income of salaries, commissions, and salesmen's traveling and other expenses.

Financial and Operating Ratios Are Useful in Reports

Ratio analysis compares one item with another on the balance sheet or on the operating statement; or it compares items selected from the two statements.

Current ratio is the most commonly used and perhaps the most significant ratio for indicating financial condition. It shows the ratio or proportion of the current assets to current liabilities; for example:

$$\frac{\text{Current assets}}{\text{Current liabilities}} = \frac{\$15,380}{\$6,000} = 2.56 \text{ current ratio}$$

The current ratio also gives the amount of working capital—the excess of current assets over current liabilities. The working capital in the example above is the excess of $15,380 over $6,000, or $9,380. The working capital reflects the ability of a business to finance its current operations after allowing for payment of its current liabilities.

A business which maintains current assets barely equal to its current liabilities will be in a weak financial condition if half or more of the current assets consist of merchandise and receivables. In an emergency requiring payment of all current debt, the merchandise and receivables would need to be sacrificed, or the business might find itself in the hands of its creditors.

A current ratio of less than 2 may be satisfactory in some situations. A ratio higher than 2 should be maintained where the current debt is of an extremely short-term or demand character.

Acid-test ratio is similar to the current ratio. It shows the cash capacity more sensitively. It expresses the relation between the quick assets (cash, collectible receivables, and readily salable securities) and the current liabilities.

$$\frac{\text{Quick assets}}{\text{Quick liabilities}} = \frac{\$7,350}{\$6,000} = 1.2 \text{ acid-test ratio}$$

Inventories, prepaid expenses, and longer term investments are excluded from current assets in computing the acid-test ratio.

When this ratio is 1, a business is considered to have a satisfactory liquid condition. That means that cash plus marketable securities and current receivables are equal to the current liabilities.

Unless there is a special reason for accumulating liquid funds, such as paying of maturing debts, it is well for management to examine the cash receivables periodically. Perhaps investment of some surplus cash in income securities or expanding operations is called for, in order to put its liquid funds to work.

Ratio of inventory to current assets is obtained by dividing the inventory figure by the total current assets:

$$\frac{\text{Inventory}}{\text{Current assets}} = \frac{\$8,000}{\$15,380} = 52 \text{ per cent}$$

This serves as a check upon overinvestment of current funds in inventory. You may use it, along with the inventory-turnover ratio, to determine a rational inventory policy in your business.

Ratio of liabilities to net worth reveals the relative proportions of business ownership belonging to creditors and management.

$$\frac{\text{Liabilities}}{\text{Net worth}} = \frac{\$16{,}000}{\$19{,}130} = 83 \text{ per cent}$$

Over several successive business periods, this ratio reveals the trend in proportion of debt to ownership. It shows whether a larger share of business assets is being held by the owner, or whether business assets are being acquired through borrowing from creditors.

In general, it is always preferable that business operations from year to year result in an increased proportion of ownership in the hands of the business. This rule is subject to qualification. It may be changed as a result of temporary or periodic. borrowing on favorable terms to meet specific situations.

Whenever a business retires some or all of its debt, this debt-to-net-worth ratio is reduced. When, however, a concern finds itself sufficiently established in its field, it may prefer to increase its debt financing for expansion purposes. Then the liabilities will again be larger in relation to net worth. This situation may be particularly desirable if: equity capital is unavailable; surplus earnings are insufficient; and borrowing can be done at favorable interest rates, leaving a considerable portion of net earnings for stockholders.

Inventory-turnover ratio has significance in controlling inventories. The smaller the stock of merchandise a business can operate on, and still meet customers' demands, the smaller will be its requirements for working capital.

This policy also reduces the storage space for merchandise, the expense for insuring goods in stock. It is designed to enable a business to measure efficiency in purchasing, handling, and moving his stock in trade.

Merchandise turnover is computed when the cost of the goods sold during a fiscal period is divided by the average of the opening and closing inventories. This gives the number of times the average inventory has been "turned" during a period. If the cost of goods

were \$120,000 and the average of the initial and ending inventories were \$20,000, the merchandise inventory turnover would be—

$$\frac{\text{Cost of goods sold}}{\text{Merchandise inventory}} = \frac{\$120{,}000}{\$20{,}000} = 6 \text{ times turned}$$

The average age of the stock would be two months. This does not mean that every part of the stock has been sold and new stock purchased six separate times during the fiscal year. It does mean that the equivalent of this has been accomplished in terms of the total goods handled during a 12-month period.

It is obvious that some parts of inventory stocks may not have been turned at all. Others would have been turned more than six times.

The rate of merchandise turnover varies greatly with different types of businesses and with different degrees of management efficiency in terms of purchasing, inventory, and sales technique.

A new business should keep a record of this ratio on its operations for each fiscal period, preferably three or six months. It should watch closely changes in the turnover rate. Then it can soon determine what the typical inventory turnover rate is and whether it can be improved by careful management.

In the ordinary merchandising concern, the inventory turnover may be figured for all the merchandise combined. Or a separate rate of turnover may be figured by departments on main types of merchandise. The latter is desirable. It enables management to spot slow-moving goods that should either be pushed more aggressively by sales technique or discontinued entirely.

For this reason, every business in distributing a variety of products should keep informed on the turnover trends. We figure turnover ratios for the main commodity groups.

In manufacturing, inventories consist of raw materials, goods in process, and finished products. It is necessary here for the turnover rate to be calculated for each of these classes of goods if the ratio is to have any meaning for management.

A lower-than-average inventory-turnover ratio is usually an unfavorable sign. The stock may contain so much old merchandise that sales of new goods are slowed up.

An extremely high inventory-turnover ratio may sometimes be attained by buying in quantities so small that the best prices are not obtained. It may also be gained by taking excessive markdowns.

Ratio of net sales to receivables is a valuable index of collections. It is the ratio of net sales for period to the amount of unpaid accounts and notes receivable at the end of that period. For example, if a company had net sales of $49,200, and total receivables of $5,850, the ratio of sales to receivables would be shown thus:

$$\frac{\text{Net sales}}{\text{Receivables}} = \frac{\$49{,}200}{\$5{,}850} = 8.4$$

This means that annual rate of sales is about eight times the amount of receivables on hand; the average period represented by unpaid accounts and notes receivable is one-eighth of a year's sales, or about 40 days' sales volume.

This ratio is most valuable in a concern which makes sales exclusively on credit.

In companies which do a cash, as well as a credit business, this ratio of receivables should be calculated in relation only to the portion of the sales handled on credit.

In situations of expanding receivables, the business should have either an annual or quarterly ratio on sales turnover or receivables.

Ratio of expenses and net profit to net sales is one of our most useful tools. This reflects the efficiency of operation in terms of its expense control. The profit and expense ratio is figured by dividing the net profit by the net sales; for example:

$$\frac{\text{Net profit}}{\text{Net sales}} = \frac{\$4{,}810}{\$49{,}200} = 9.8 \text{ per cent}$$

The variation in expenses and in the net profit per dollar of sales requires close study by management of all factors in the business. Comparison of the operating statements for the last several operating periods affords a basis for detailed analysis of factors contributing to profits. This ratio is a very real measure of operating efficiency.

Example: In retailing, the profit ratio expresses the difference between the *gross-margin percentage* and the *expense percentage;* either a high markup or a low expense will combine to produce a high net-profit ratio. Yet—

A high markup may be depriving a business of sales volume because prices are too high.

A too-low expense ratio might mean we are not spending enough for advertising, promotion, or selling to produce the sales volume.

A Table Outlining the Most Important Ratio Studies

Many other ratio studies are used by businessmen. Here's a listing of what market analysts look for—

Information you can get from the figures	*Why it might be important to you*
Net book value of the common stock—the total book value of the preferred stock as computed below minus the par value of the preferred stock	This gives you the amount of assets behind the common stock. If the book value of common stock continues to increase from year to year, it indicates that the company is probably in a good financial condition.
Net book value of the preferred stock—total book value of the bonds as computed below minus the face value of the bonds. To find the net book value of one share, divide the total net book value of preferred stock by the total number of shares outstanding	This gives you the amount of tangible assets behind the preferred stock. The face value of the bonds is eliminated because the bonds have a prior claim on the assets if the corporation is liquidated.
Net book value of bonds—total assets minus current and other liabilities and intangible assets. To find the net book value of one bond, divide the total net book value of bonds by the total number of bonds outstanding	This tells you the amount of tangible assets that stand in back of the bonds. Assets like goodwill, patents, etc., are eliminated because they have no tangible value.
Earnings per share of common stock—net income less preferred dividends divided by the number of shares of common stock outstanding	This figure is the one that has the greatest influence on the market price. The earnings per share record of the company, the current earnings per share, and especially the expected earnings per share are the factors that most usually influence the market price. This figure is also used to compare a company's performance with that of companies in the same or similar industries.

Information you can get from the figures	*Why it might be important to you*
Yield on investment—dividends per share divided by the price you paid for each share	This gives you your return or expected return on your investment. For example, if you paid $10 per share and received a dividend per share of 40 cents, your return is 4%.
Margin of profit—net profit from operations divided by the net sales	This figure tells you what part of each dollar of sales the company retained as profit. It is a very handy guide in comparing the earnings of this year with previous years to determine the earnings trend of the company. It is also very valuable in comparing the earnings of this company with that of other companies in the same or similar industries.
Interest coverage on bonds—total income (before taxes and interest charges) divided by the bond interest	This figure is usually of most interest to the bond holders. It tells them how many times over the bond interest the company earned. The larger the earnings, the surer they are of collecting their interest. The common stock investor is also interested in a high interest coverage. If the interest coverage is high, it assures him that there will be something left to be paid to him in dividends.
Preferred dividends coverage—net income divided by the preferred dividend	Because the common stockholder cannot collect any dividends until the preferred dividends are paid, he is interested in a high preferred dividend coverage. The preferred stockholder is, of course, also interested in high preferred dividend coverage as assurance that he will receive his dividend.
Working capital—current assets less current liabilities. Current assets are the cash, inventories, and receivables; current liabilities, the debts that must be paid in the near future	This tells you whether a company can meet its current debts easily and have enough left for normal expansion of its operations.

Information you can get from the figures	*Why it might be important to you*
Current ratio—current assets divided by current liabilities	If the current ratio is 2, it means the current assets are twice as great as the current liabilities. This would be the same as saying that the working capital is equal to the current liabilities. The current ratio, however, is needed in comparing the position of several companies in the same or similar industries.
Quick assets—current assets minus inventories	These are the really liquid current assets. Many believe that the quick assets should at least equal and probably be more than current liabilities.
Comparison of the working capital and the bonded debt and preferred stock	A company is considered to be in a good position where its working capital is at least equal to its bonded debt and its preferred stock. That would mean that its current assets are at least as much as the current and other liabilities, bonded debt and preferred stock.
Inventory turnover—cost of sales divided by inventories	This tells you whether the company's inventory is too high or low. It tells you how many times during the year the average inventory was sold. A comparison of the inventory turnover in your company with that of other companies in the same or similar industries might give you valuable information.
Finding what portion of the total assets is equal to the value of the inventory	This is another guide to finding whether the company has too much or too little inventory. This percentage of total assets should be compared with that of other companies in the industry to get any significant meaning from it.
Proportions of bonds, preferred stock, and common stock—to find each proportion divide the face value of the total of each class of securities by the total capitalization—bonds,	You will want to find out what portion of the total capitalization is made up of the security in which you are interested. Generally, common stockholders do not want their

Information you can get from the figures	*Why it might be important to you*
preferred stock, common stock, surplus, and reserves	company to have a bond debt of more than 25% of the total capitalization, or a combined bond debt and outstanding preferred stock issue of more than 50%. Of course, these rules are not always used. The earnings record of a company might justify a higher bond and preferred stock ratio.

Ratios Should be Compared with Standards

When we get ratios, comparisons are possible. Current ratios may be compared, for instance, with those of the preceding year—or with those of similar businesses.

Comparison of our cost figures which show the difference between expenses and net profit and the standard calls for study to analyze the variations in the purchasing, pricing, and selling plan to discover why the gross margin is so low; the individual expense items should be examined to permit corrective steps. Now we can seek the reasons why our ratios vary from the standard.

Example: In retailing, a *high gross-margin ratio* may result from buying at lower prices or selling at higher prices. A high gross-margin ratio and a low sales volume can indicate the possibility of gaining more sales by reducing the margin. Lower selling prices or better merchandising values might attract more customers and increase both volume and net profits. *A low gross-margin ratio* may be caused by paying more for goods, or by intentionally selling at a lower price. If greater sales volume and reduced operating expense result, the lower price policy can be more profitable. *A high total-expense ratio,* if accompanied by a high gross-margin ratio and satisfactory sales volume, is not objectionable. It might, for example, indicate that we are emphasizing merchandise that offers a high margin and requires considerable handling or processing. Usually, however, a high total-expense ratio is caused by poor control over expense items. Wages, supplies, and all other costs are higher than average. A higher-than-average *wage ratio* is a danger sign. It may mean that labor is not being used efficiently, that the store is not properly arranged, that too much

service is given for the markup obtained, or that there are too many employees. *A high wage ratio* may indicate a policy of obtaining sales by providing more or better clerk service—which is offset by smaller expenditures for rent, fixtures, or advertising. The success of this plan can be determined by studying the sales margin and the net profit. With a high gross-margin ratio, a high wage ratio may signify that emphasis is placed on high-markup goods requiring more handling and sales effort. *A low wage ratio* is usually evidence of capable management—if accompanied by *better-than-average gross-margin, net-profit, and inventory-turnover ratios*. If the sales volume is unsatisfactory, the low ratio may mean that not enough workers are employed, or that more efficient employees are needed.

Where should you get these standard expense and profit ratios? It is important to make comparison of financial statement and ratios for each current business period with the same statements and ratios of previous periods. That determines trends, weak points, and needed improvements.

It is usually possible to get comparative data through trade associations. A necessary requirement for study of these is that all whose figures are used to make the ratios should have a standard or substantially uniform system of accounts. Otherwise, a comparison having different accounting would be misleading. Where else can you get the data?

Tables are regularly prepared by organizations like Dun & Bradstreet of New York. They may be used to good advantage—to determine a company's operating position in comparison with that of a large number of concerns.

Figures for certain trade lines may be had in a number of the Inquiry Reference Service leaflets of the U. S. Department of Commerce. Available copies of these leaflets may be had gratis by request directed to the nearest field office of the Department (check your telephone directory for address of nearest office).

Uniform Accounting Should Be Encouraged in Each Industry

Uniform accounting for costs has long been in use in many industries. It is a vital aid to more efficient management.

The current economic difficulties—the need for sales analysis to tell where, how, and at what price to sell; the study of mounting costs—all these make it essential to help management with this information.

Reduction of costs is one object of uniform accounting; important, too, is the basis for annual reporting of industry conditions which will show:

Average, mean, high, and low cost levels for each element of ordinary operations—under comparable conditions.

How the costs *below* average are attained; what are the methods and practices in the best operated units.

You create the opportunity for cost improvement by uniform industry reporting. It can give you facts on which to base your own plans for raising efficiency. It will stimulate your ingenuity, help find ways to eliminate stand-pat attitudes, conventional practices, expensive habits.

How is this done? The way is simple: members of an association or industry cooperate; sales and cost experiences of the industry are gathered—then compiled and interpreted for the benefit of all.

Members thus contribute their figures to the solution of common problems. By this, the individual member gains from other members the collective experience of the group.

Every organization has its individual characteristics. But it is possible to develop and show those problems that all members of a group have in common. You can then usually find the sales and cost averages or standards applicable. The individual sales analysis, the unit costs, and the resulting earnings may then be tested—through these comparatives—to one's own business.

A common understanding of the language of the costing and the operating statement is necessary. Without it no comparison of value can be made. *So a carefully prepared uniform classification of accounts and practices must be used by all reporting* to the source working the study.

The usual process is for the industry or the group to adopt a *basic list of operating accounts; this we call a uniform framework of accounts.*

It would not be practical or desirable to create a rigid system of accounts to be used without variation in all situations. Detailed requirements and particular problems differ too much from one business to another. So we seek uniformity only in the basic outline of account classification.

The basic system can then be adapted to the particular require-

ments of each organization. You subdivide the classifications listed into several accounts wherever needed for more detail.

You can subdivide to any extent without upsetting the comparability of figures with industry averages. The only rule to watch is this: See that the classification defined in the manual can always be obtained from the business records by simply totaling each group of accounts that falls within a standard classification.

BUDGET DESIGN CAN AID EFFICIENT MANAGEMENT

Management uses budgets, plus the financial reports and systems described in this book, to get control. Each is essential to, and supplements, the other.

The information developed through the operation of the reporting systems is of little use as an instrument of control unless it is acted upon promptly and properly. To act intelligently calls for a plan. That plan is the budget.

An accounting system that does not include budgetary procedures misses the opportunity of making accounting light the way to the morrow—with the rich experience of the past. The two, accounting and budgeting, are inseparable. It is self-delusion to consider them independent of each other.

Budgeting makes for planning before acting (by acquiring knowledge of the business) and using foresight as well as hindsight.

Budgets give a yardstick with which to check results against expectations and estimates. They coordinate all the activities of the business. They make for the most effective use of resources with minimum costs. Budgets are an aid to efficient management in these ways:

Reducing waste, since money is to be spent only for purposes carefully considered in advance.

Fixing responsibility, since all participate directly in formulating budgets covering their activities.

Restraining unwise expansion. Each undertaking is based on cold facts before commitments are made rather than on overenthusiasm and loose thinking.

Establishing a proper relationship between income and expense. While a budget guides the expenditure of money to make money, it also acts as a definite check against the undue mortgaging of future income.

Giving the opportunity, when actual results are checked periodically, to concentrate on the weak spots showing need of attention.

How to Adopt Budget Practices

Proceed with caution—follow an experimental path to a finished design. Some particular department, function, or classification of cost or expense (or income, for that matter) may be selected and

a flexible exploratory trial-and-error procedure begun. It is quite in order, for instance, to pounce upon overhead as something that requires planning and control. It is wise that the account classification in the overhead group be sufficiently detailed with the account designations sufficiently descriptive to permit an orderly and logical grouping and accumulation of charges.

Which period is to be budgeted? The budget period ought to coincide with the accounting period. And matters will be easier especially if the budget period corresponds to the natural business year. Well-rounded plans must contemplate the goals to be set, the results to be obtained. They must consider the influences of the usual transactions and the business cycle. The mechanics of budgeting are greatly helped if the period covered—

Begins with the starting point of a new season or cycle.

Ends with the date at which disposition has been made of the merchandise purchased or produced and the cycle is completed.

Depending upon the type of business and the efficiency in the operation of the budgetary system, this period may be a year, a quarter, a month, or even a week. It is wise to plan the annual budget with an eye toward the business cycle—to consider the probably regular fluctuations in business conditions generally.

The whole budgetary picture need not be filled in with great detail. But the immediate season or month will be clearly pictured.

At the beginning, start with the period for which conditions can be fairly accurately projected, perhaps three or six months.

A tentative budget can be prepared for the succeeding six months, to be amended as time reveals the results of the operations of the first period—this gives a clearer perspective to the second half-year.

To be successful, a budget program must have the enthusiastic backing of the chief executive of the business. This can be secured by an accounting officer who will conduct the program and prepare reports in such a manner that their very usefulness will make them indispensable.

How do we prepare the budget? It is best done with data obtained from various sources both within and without the system. We follow an estimating process involving the following steps:

Setting reasonable sales quotas
Scheduling the details of merchandising

Determining the production program—that is, the
  Material requirements
  Labor requirements
  Estimated factory burden or overhead
Estimating all other expenses

Much of the paper work in budgeting falls to the accounting department. *But the control of budgetary policies and aims remains an executive matter.* The accounting or comptroller's function is concerned only with—

Gathering accounting data and estimates.

Coordinating, regrouping, and summarizing these estimates for clear and efficient presentation.

Submitting budgetary data to a budget committee, in such detail and such form of presentation as it finds most useful and informative.

Giving effect to changes as directed.

Preparing alternative forecasts.

Obtaining approved budgets from the committee and furnishing them to the department heads concerned.

Obtaining actual figures and comparing them with the budget.

Tracing and explaining any divergencies.

Reporting findings to the budget committee and recommending steps to be taken to improve procedure.

Undertaking studies and research as may seem desirable.

Assuming you adopt this routine, the normal step to organize for budgeting is to assign practical people (in charge of any part of a business) to prepare their forecasts. Their actual experience is invaluable. For example, the salespeople in direct contact with customers are best fitted to determine what they can foresee after careful analysis of their accounts and available business. The concentrated study and attention required of them to prepare the budgets force them to use their own valuable experience. Then they can, and logically should, assume the responsibility for completion and performance.

Have the accounting staff cooperate by furnishing the past year's experience in detail to serve as a basis for the new figures and any other data required to enable a department head to review past performance and fix his goal. But the completion should not be laid upon the doorstep of accountants. They are capable of assembling the material submitted and supplying the figures on performance, but no more.

From there on, executives must give the budget a painstaking review. Without it, the budget may not conform to plans for the business—or may not be within measurable accomplishment.

To the executive belongs the task of coordination and of ensuring proper attention to details by those responsible for each part of the whole. He must determine the gross income expected from each kind of effort in order that the desired profit may result. Necessarily, then, the influence of the policy-conscious executive must be felt throughout the entire budget.

We must make sure to accompany a budget with controls of operations. That means creating departmental records to aid department heads in discovering and curbing unfavorable departures from the budgetary plan. It also means—

Systematic accounting reports comparing the actual results for each month with budget estimates.

Analytical breakdowns that show and assign reasons for variations from budgets.

Holding department heads to strict accountability; taking corrective measures courageously and quickly.

Budgets are not unalterable. They are prepared on the basis of the firm's past experience; and on its full knowledge of trends and directions in its own trade and industry. They are naturally responsive to political and social changes. So they must be flexible—speedily amended and revised to meet rapid changes in the economic scene.

Types of Budgets Set Up in Various Businesses

We have been discussing income and expense budgets. Other types of budgets are needed for profitable operations.

Every business needs a cash budget to plan for: required outside financing; methods of paying obligations incurred; determining of funds that can be used for other than ordinary operations, particularly equipment purchases and unusual promotion. We prepare this budget, after all other budgets are finished, in this way—

Trace probable flow of cash if budgetary plans are followed throughout period budgeted.

For weekly or monthly intervals throughout period budgeted, determine cash requirements necessary to meet debts as due as well as payroll and other expense requirements.

Compare requirements with ready cash.

Determine what cash can be made available by borrowing or other use of credit.

If sufficient cash is not had by borrowing or through investment, revise all budgets to the limitations imposed by available cash.

Sales budgets are another essential management tool. They allot the potential market (after serious market study) to territories or systems of selling. They set up quotas to salesmen so as to assure that all selling forces contribute their proper share of activity. Throughout this, adequate control of performance of all members of the organization is retained. Practically all other budgets are based on the sales budget. In some cases, the sales budget is also a tool to find the sales help and the promotion or advertising needed.

To prepare this budget, we first survey our market and experience. We allow, today particularly, for probable economic changes—especially those included by business cycles, war, or postwar conditions. Then we designate our probable share of the market by items, branches, territories, salesmen, or other selling mechanics. We then determine—

Unit quantities and amounts to get the individual sales by salesmen of each group or by classification of product.

This information can be started if salesmen and all sources of sales furnish—by product and by customer in their territory—their estimates for the period to be budgeted.

The sales manager and the executive staff can then make their own estimates.

After the sales budget has been adjusted to include all ideas, quotas are adopted for each type of selling—considering business conditions in each territory, special promotion advisable, and other pertinent factors.

Production budgets are necessary to coordinating plans. They seek to obtain the rate of manufacture for direct deliveries, stock, and work in process—so that shipments can be completed along the lines of the sales budget and the projected expenses of the operation. Through production budgets, detailed plans of actual operation of the plant, control of work, scheduling of individual parts into completed assemblies, and other costs are found.

In preparing the budgets, we check the capacity of the plant and equipment to produce. We allow for economic changes, especially those induced by war and postwar conditions. We make sure equipment, materials, and labor will be available.

We usually make different schedules of requirements for men and material as well as costs, based on alternative schedules of sales. With them, we can—

Make detailed schedules of all probable expenses based on the alternative budgets.

Have managerial plans ready for fulfilling and routing all production as provided by the alternative schedules.

A purchasing budget can be of considerable aid in controlling funds. Its purpose, broadly, is to avoid the freezing of capital in large stocks. At the same time it avoids buying in rising markets. Through it—

Capital invested in inventory is reduced.

Loss through excessive stock and depreciation of inventories is minimized.

We schedule full delivery of material necessary for production and sales.

Do all possible to furnish suitable materials when required at the cheapest possible price.

Labor budgets can be of material benefit in reducing expenses. They fix the labor cost of producing the product. They also—

Tell the personnel department of the number and type of people required during the whole season of operation.

Permit the personnel department to reduce turnover whenever, this can be done by advance scheduling, proper selection, and adequate training methods.

Equipment budgets are often used to considerable advantage to furnish reliable costs of buying new equipment necessary for production and to keep our equipment in the best working order. Sometimes these also are used to provide for major maintenance and alteration programs. Through them, adequate financing is ensured by proper forecasts of disbursements.

We always build a master budget. It coordinates and integrates all other budgets. It is based on all previously explained working budgets. It will—

Conform to the cash that will be available as shown by budget of cash requirements.

Accept the sales budget showing a sales volume that will permit greatest profit after consideration of alternative costs of production shown by production and subsidiary budgets.

Accept, adopt, and act upon the sales budgets and production budgets that will give greatest profit with least financial risk.

In this we budget requirements of men, materials, and resources as well as money requirements. We budget prospective time allotments as well as methods of sales, production, and administration. We adopt a budget that will keep us financially strong. We do not extend resources as to make us a poor credit risk. We try not to bite off more business than we can chew. We consider all alternatives—

Additional machines or more workmen?
Greater volume and lower prices or price maintenance?
Growth in size to discourage growth of competition?
Does additional chance for profit square with prospects of heavier taxes?

We always budget with an eye to future periods—remembering we are making an investment in the skills of employees. Many present costs have a future bearing. For example, the effects of current advertising are projected ahead to give sales today and next year. We budget *not* to buy expensive equipment if we know technological changes are underway and new inventions in the offing. We budget *not* to build or buy needed plant and equipment during a depression.

And we budget with knowledge of what our competitors are doing. They probably are going after the same market. We seek to avoid cut-throat competition, with resulting capital or operating losses.

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OTHER PRINCIPLES SOUGHT IN SYSTEM DESIGNING

We've roughly described for you the principles used in setting up commonplace balance sheets, operating statements, and budgets.

There's much more to good design of an accounting system. Among other things, it is vitally concerned with—

1. *Product costing* and reports to management on variances from good practice in the costs found.
2. *Sales costing*—the cost of marketing and distribution—and again—what might be done in view of the facts found. This includes controls of salesmen's calls, reports and their costs so that intelligent sales management can be aided. It also covers customer credit management.
3. Control of *purchasing mechanics*—and all that follows in *receiving, inspecting,* and *storeskeeping* of the inventories.
4. *Fixed asset management*—particularly in the continuous recording of the use and serviceability of plant, equipment, facilities owned—and in the management of insurance to assure maximum coverage at minimum cost.
5. The general *internal control of all operations* against *employee pilfering* in their handling of corporate funds or property or their relations with its customers or creditors.
6. Insuring the segregation of income and expenses and losses to secure the *minimum income taxes.*

The good accounting design will set up the methods to control all six of these. It will do it in the large and in the small business.

Study with us now what is sought in the design for these six objectives.

Product Costing and Plant Studies

Many of the chapters in this book (dealing with specific industries) outline representative product cost systems. In each of these, the field is narrowed down to a particular kind of business. Each industrial group has different operations; consequently, each requires variations in cost methods. These articles on specific industries furnish concrete examples of cost systems and the principles governing the costing.

Cost accounting deals with many various types of analyses, such as production costs, distribution costs, marketing costs.

Why cost finding? What is to be accomplished? Why? Here are some of the more important purposes of cost accounting:

To facilitate price setting.

To make more detailed and accurate the periodical financial statements of the business submitted to management for information and guidance.

To furnish a basis for determining production processes and equipment to be used.

To determine whether the production of particular items is profitable and whether such items should be continued or discontinued.

To aid in scheduling and planning operations, the control of inventories, etc.

To furnish the accurate cost of jobs, parts, articles, and assemblies, as compared to present cost with previous experience, to costs with those when the price level was set.

To analyze the operating efficiency by: furnishing regular comparative data; detecting increases in elements of cost.

To allocate costs to precise units by distributing overhead to production centers or jobs in rational manner.

Good management finds control of error and loss—plus cost reduction—in good records. That is usually a routine in which we—

Interlock all costs with general ledger and financial controls, so as to make sure the cost records are correct.

Tie records rigidly to the control over stores and inventories. This usually means perpetual inventories checked against physical inventories to control the receipt, storage, and economical use of materials and supplies.

Get a costing of labor fully balanced to the payroll records.

Set up a regular system of reporting maintenance costs, inspection costs, repair costs—all activities within the plant.

A good system may furnish the accurate cost of jobs, parts, articles, and assemblies. *More important*—it should compare present costs with previous experience or standards, and

Show present costs as compared with those when the price level was set.

Analyze the operating efficiency by: furnishing regular comparative data; detecting increases in elements of cost.

Allocate costs to precise units by distributing overhead to production centers or jobs in rational manner.

We must design cost reports in the language of the men who use them. Then supervisors and management can analyze them periodically. In this we get enthusiastic cooperation. We thereby—

Set cost objectives for materials, man-hours, machine-hours, etc., that are reasonably obtainable—then periodically and promptly report exceptions in practice.

Expose departures from standards. This study of variances is enormously worth while if supervisors study them and get at the causes and then report on variances.

We get everybody's hearty cooperation all along the line, by providing incentives as rewards for better-than-normal performance.

Develop the mechanics of standards for reporting every change, good or bad, to all supervisors.

Produce automatic reports revealing increased costs caused by plant idleness or higher material prices; reduced production, and thus greater unit overhead cost; increased labor costs with scale changes; new transportation costs arising from reroutings to get delivery.

The analysis of labor cost is a fundamental part of cost keeping. It will: help to cut payroll frauds; be of use in cost compilation; be the basis to furnish a daily record of plant efficiency.

Daily labor cost reports give a method of production analysis for foremen as well as for executives. They can give, for each man, each operating center, and each department—

Cost and statistics of production of the operators.

Cost and time lost by operators, plus explanation.

Comparisons of labor time, dollar cost, and production with the standards created, plus explanation of variations.

The same record keeping can furnish the data for necessary financial and cost records. It can determine the wages due each man as a check against the regular payroll records. It can be a full basis for cost records. The plant payroll process should guard against payroll errors and frauds. Some aids are—

Maintain a historical record of each employee, the date of employment, starting salary, department, and date of discharge. In this record, allow for salary changes and full approvals.

If you can, pay by check to eliminate risk and to save time in making up the payroll.

If you can, pay on a semimonthly basis (to diminish risk).

Get a periodic physical check of employees on the payroll—get this to periodically supervise the actual distribution of salaries or wages. You need to guard against "dummies" receiving salaries.

Make it a point to investigate all unclaimed salaries or wages.

Obtain receipts for all payments made in cash.

Get another to check mathematical computations of payrolls. Someone other than the paymaster should check his figures.

Study the safeguards that time clocks offer. If you have clocks, audit them for possible duplicate cards.

Be sure to check time cards against time charged to jobs on cost assemblies.

An analysis of material costs is also essential to a good system. It should gather material costs by jobs, processes, departments, etc., as a basis for analysis and comparison. Here, we seek information about high costs, waste, and spoilage exceeding the standard, resulting from—

Changes in costs owing to an increase or decrease in the price of materials
Errors of individual operators
Faulty material or machines
Faulty operating conditions
Errors in design
Sabotage or theft

Our costing system may also produce detailed studies of machines and departments—showing clearly all variations from fair standards. Reports can describe the periodic production, comparisons with the standards, and the reason for all discrepancies. These records normally analyze the cost of man and machine idleness so as to give:

Service problems for which the employee is not responsible.

If lack of work causes idleness, the basis to investigate planning, routing, dispatching, or scheduling.

The losses due to lack of materials, tools, or equipment. That means wrong planning, poor stores control, or bad scheduling.

The waiting for setup, absence of instructions, damage to job, power off, or a machine needing repairs. These call for speedy correction.

Good management finds labor cost reduction in these reports, if it sells all key people on their use to improve costs. We must train them to realize that cost improvements don't just happen. We can assist them if we create a regular routine under which they can study costs.

Distribution System Studies

We use that term here in its broadest sense; we're concerned with the internal accounting and the systems needed by business to get a great many points. In this part of the book, we've broken the subject into these three sections—

1. What does it cost to market our product? How does knowledge of those costs affect what we shall do in picking the right products to sell and the way we shall sell them? What, particularly, does it cost for wholesaler marketing? That is a field of its own, requiring intensive systematizing—intensive control.
2. How tightly do we control customer payment for what we sell to them? What records and reports do we need to make sure of our methods?
3. How can we best control the movement of *salesmen?* And how can we control their expenses in selling? What reports and systems do we need to do this intelligently?

Our cost studies in all of this work must be geared to check all operations against our standards, our budgets, and good performance.

Important too: Federal and state legislation prohibits discriminations in price. That makes it essential to be aware of the possible dangers in selling commodities to various classes of purchasers at different prices. The various acts generally permit recourse if prices are unlawfully discriminatory. But different prices can be justified by proving cost differentials.

We must be sure to know how to find the cost of selling. As in production there are opportunities for reducing costs in marketing through the improvement of efficiency.

Progress lies in this direction. An improvement in efficiency and a reduction of marketing costs offers opportunity for lowering prices, increasing net profits, and improving a competitive position.

No company makes all its sales at equal profit. In every business, there are sales that are much more profitable than the company average, and a proportion of other sales that are much less profitable.

These are basic facts of business life which marketing executives meet every day. Yet these commonplace truths hold "secrets" which so far have been acted upon by only a few companies.

In most businesses, a large number of customers, orders, and commodities, bring in only a minor proportion of the sales. Such a distribution of sales would not necessarily result in unprofitable business, except that marketing efforts are costly. Hence, marketing costs all too frequently follow the number of customers, orders, commodities, etc., rather than the actual or potential dollar sales. A large part of the marketing expenditures are responsible for securing only a very small part of the total sales and gross profit results.

Intelligent businessmen are thus faced with a need for marketing cost policies, such as—

How many and what kinds of customers to sell.
Which channels of distribution to use.
Which territories to cover.
Which products to sell and at what price.
Where and how to apportion their marketing efforts in closest relation to potential sales results (estimates of market potentials by territories, products, and customer classes).
Where the relatively unprofitable sales are, and the reasons for the sources of loss; ways and means to make these sales profitable.

The whole cost of distribution is to be included in these studies.

That covers promotion, advertising, and anything else that serves to create the demand for sales—plus

Selling facilities of all kinds.

The entire delivery process, together with any storage, warehousing or handling costs incident to the sale.

The functions of credit approval and collection.

Thus, part of the record keeping, statistical analysis, and internal systems is to *insure selling controls for profit.* We seek at least the costs and profit incident to each type of sale. And we may seek these other facts:

The pricing policy that will come from such analysis (possibly different territories require different scales; various classes of consumers need different prices).

Cost of sales by territorial divisions, branches, or field locations; type of customer served; method of selling employed, dealers or jobbers vs. direct sales to consumers.

Costs of sales for specific products.

Unprofitable customers (seek a better price for such distribution, or make continuance of such sales a house policy comparable to advertising or goodwill promotion).

The assembly of costs by type of selling should be fair to all classes. That is simple if distribution costs can be charged directly to individual sales classifications. But where that is not readily possible, a fair system of apportionment must be found. That can be based upon detailed analysis of all costs in behalf of all services or functions.

Elimination of unprofitable sales is not the only method—or the most desirable method—for dealing with unprofitable business. Workable distribution cost controls may reveal the answer to the following (for converting relatively unprofitable commodities into sources of profit)—

Simplify the line? Reduce the number of sizes, styles, qualities, and price lines. Simplification may result not only in reducing distribution costs, but also in increasing sales, by permitting concentration of advertising, selling, styling, and design on a smaller number of items.

Repackage the product? A change in the package may reduce the direct costs of packing, and the new container may make possible reductions in transportation, storage, and handling costs. A new package may also influence the volume of sales.

Increase—or decrease—the amount of advertising and promotion work? Whether it would be profitable to increase or decrease advertising depends on such factors as the effect of advertising on volume of sales and the effect of the volume of sales on unit production and distribution costs.

If sales and margins by individual commodity departments are desired (either by individual salesmen or in total for the house), a re-sorting of invoice lines by commodity departments is necessary.

One common method is to use a columnar analysis sheet with a column for each department, and to post the amounts of the invoice lines, one at a time, into appropriate columns. The amounts in these columns are totaled daily, semiweekly, or weekly, and transferred to summary sheets. If a departmental analysis by salesmen is desired, the first step is to sort the invoices according to salesmen, and then to use a separate columnar sheet for each salesman. The sheets for the salemen are totaled to secure house totals.

Just as important as the gross-margin analysis is the real finding of the profit and loss by customers, commodities, brands, departments, and territories. This takes an allocation of all the expenses of operations.

In order to operate successfully, it has been necessary for the wholesaler to introduce a highly effective system of cost control. Customer and product control ranks high. The methods used—

Check of sales and margin analysis. Some wholesalers check up weekly on the gross-margin rates by departments—i.e., sales volume secured by each salesman in the various departments—and by classes or brands. Some check the dollar gross margin of each salesman, minus direct expenses for which he is responsible, as a means of finding his effectiveness.

Records of the total or departmental sales to each customer. These also help in evaluating the salesmen's efforts.

Closer control over the credit-granting powers and the collection activities of salesmen. Wholesalers have sought to overcome the weaknesses of salesmen in credit and collection work. They use records which disclose current conditions in the outstanding accounts of the salesmen's customers. These policies and more stringent credit have reduced accounts receivable and bad-debt losses.

In wholesaling, net profits are a function of two variables—dollar gross margins and dollar operating expenses. They may be changed by a shift in either or both of the variables. An increase in net profits can be effected by eliminating unprofitable customers, even though such a move reduces the total sales volume. Net profit position is often improved. Wholesalers can save in dollar operating expense an amount greater than the dollar gross margin they give up.

So they seek records to tell them how to turn unprofitable custom-

ers into profitable ones by adoption of the policy of offering inducements to the retailer who increases his order size. This is important; it cuts credit delivery, and selling expenses.

Appraisal of the relative profitability of brands is based on two factors—the expense of handling the given brand, and the dollar gross margin contributed by it. Wholesalers are likely to judge the profitability of brand groups on gross-margin rates. They may neglect the contribution the brand group makes to the net profits of the business. A brand may carry a high gross-margin rate. But, because of small sales volume, it contributes little to the dollar gross margin of the business. On the other hand, a brand may have a low gross-margin rate. But because of large sales volume, it contributes a satisfactory amount of dollar gross margin. It is necessary to look beyond the dollar gross margin to determine the relative profitability of handling different brand groups.

A system of inventory control might weed out the slow-moving items, prevent "out of stocks," establish optimum purchase quantities, and achieve a high rate of turnover.

Cost studies are essential to find the optimum number of branches and spacing that will result in the lowest total expense. The spacing of branches affects the operating expenses. With branches located close to each other, delivery and travel expenses are decreased, whereas the expenses of maintaining branches are increased. Conversely, with fewer branches located at greater distances from each other, delivery and travel expenses are increased, whereas the branch maintenance expenses are decreased.

It is important that the wholesaler know what territory he can serve profitably. If he extends his territory too widely, he will probably increase his operating cost out of proportion to the volume he can hope to obtain. That dissipates profits realized on the business enjoyed in territory which he can legitimately serve. If he does not extend enough, he may forfeit desirable trade.

It usually costs as much to prepare orders and keep records for customers in one territory as it does for customers in another. How does the wholesaler go about the study to find which customers are profitable?

All costs, other than selling and delivery, can be charged to outgoing merchandise on an equal basis, regardless of destination. This burdens all merchandise assembled for shipment with what may be styled a constant cost.

To determine whether a given area in his market is profitable, the wholesaler need only add selling and delivery costs for the area to his constant cost. He then compares the result with the gross profit which the area yields.

The wholesaler continually strives to make each section of his market yield the maximum desirable trade, at a cost which makes operations profitable. Cost should be so controlled and activities so adjusted as to make as large as possible the territory that can be served without loss. Some questionable territories may require special treatment. Before opening a new territory, a wholesaler should first—

Have the territory surveyed to ascertain the prices at which his type of merchandise is selling in that territory.

Find out what his direct competition would be, where it is located, and what its possibilities are for rendering a better service.

Find out whether competitors operate a voluntary group or whether they have built up a big following on their own brands, whether there is a retailer-owned wholesale house in the territory, and all such information.

Arrive at a determination as to the potential volume of business he feels he can secure from the territory.

Knowing his constant costs and his selling costs, add to these two items his delivery cost in order to arrive at what he can consider will be his cost of operating in this new territory.

Part of the system to be created in each business is the credit department reporting to the management. What is needed here? Let's assume the credit department is organized to do at least these things—

1. Get the facts first about the customer—by checking through the normal credit reporting agencies, salesmen, the customer's financial statements (best made upon efficient forms supplied by you to him) and all other available sources within each business.
2. Automatically flag all accounts that need attention.
3. Study the individual accounts, know the distress signals, help the customer out of temporary difficulties, make sure you keep those that are profitable with you in the business, and, most important, of course, collect quickly what is due to you.

Let's assume a business is organized to do these things. What reports does management want about the credit activities? Our system should give—

1. Regular reports on the age of outstanding accounts. What, for example, is 30 days old, what 60 days old, what older?
2. Who the delinquents are. Does that disclose any trends to be studied? Is the delinquency caused by bad selling? Bad credit management? What can be done to improve the picture?
3. What it costs to collect accounts. Is the amount reasonable, and is it fair compared to conditions found in comparable businesses?

This part of the system takes expert guidance from credit experts. They are necessary to insure the efficiency of the system—the regular reporting to management of all it needs to know about the customer handling here.

Control of all selling forces via effective records is an essential tool of good management. What is required?

One element is sufficient information to check all salesmen's moves (through their reports). We also seek to—

Check their call reports against prospect files.
Check their expense reports to prove coordination with call reports.
Check the results from each type of promotion.
Find the actual production and actual cost of each man.

Study of sales and call reports is needed to be sure that prospects are not being consistently neglected through no fault of the salesman. That often means a change in a territory or assignment of other salesmen to cover prospects.

The system studies the effort in all calls.

It finds out if selling is routed carefully, and if salesmen spend too much time on unprofitable accounts or unpromising prospects. Territories are efficiently and economically covered.

Salesmen's costs controls usually start with a fixed policy on expense arrangements—a completely detailed, mutually understood statement about allowable expenses that will be paid by the company. It should set up a definite rule stating exactly how the expenses must be reported and substantiated by the salesman in a permanent reference form. This should generally cover policy concerning all expenses incurred away from home on the company's business, including—

Hotel rooms in cities of various sizes
Meals, also according to size of cities
Extra-charge accommodations on trains
Use of airplanes
Tips
Taxis
Valet, laundry, and shoeshines
Telephone and telegraph
Sunday expenses when away from home
Entertainment
Expenses when in a home town (lunch, etc.)
Completely detailed understanding as to automobile costs—mileage rate, insurance, depreciation or upkeep, tires, daytime parking, overnight storage, home-town use, distance limitations (no long trips), allowance when used in place of cheaper transportation, etc.

Provision for combination business and vacation trips
How and when expenses shall be reported and when they shall be payable
What receipted bills or other supporting evidence shall accompany expense reports
Association and club initiation fees and dues
Any matters peculiar to your line of business that might occasion misunderstanding and disputes

Once the expense manual or instruction sheet to salesmen is set up—we need to concern ourselves with the internal audit of reports given us by the salesmen.

We need approvals by the salesman's direct superior and an accounting-department official. Our system should also do this:

Provide a means by which costs can be checked against railroad and Pullman rates, bus fares, and other provable items.
Furnish a quick comparison with salesman's previous costs and those of fellow salesmen operating in similar territories.
Show ratio of expenses to sales volume.
Disclose information permitting economical salesmen to be commended or rewarded for their thrift.
Provide for prompt payment to salesmen.

This is the beginning of the check to avoid salesmen frauds. This scrutiny of expense accounts should spot items out of line. Internal audit should also include—

Actual check of salesmen's reports with receipted bills or definite knowledge of costs for various traveling and expense activities.
Insistence, wherever practical, on receipts for all items in expense accounts.
Check to rate books for railroad, Pullman, bus, and any other charges that can be proved.
Curtailment of excess costs by effective bulletins to traveling people on—
- Failure to take advantage of round-trip rates
- Unnecessary Pullman accommodations
- Excessive charges for meals
- Unreasonable entertainment expenses
- Unnecessary telephone and telegraph costs
- Unreasonable use of taxicabs

Often the salesman's call reports and traveling expenses will vary, suggesting that one is in error. Too often, sleeping accomodations for both Pullman and a hotel are found on expense accounts for the same period. Too often excess mileage between various points is found in them. In a great many cases they are incorrectly added or extended.

Similarly there are repeated items for taxis or bus fares when automobile expense is already charged for. Expenses for porters

or tips are often charged when the quantity of luggage may be very small.

Sometimes salesmen collect cash direct from customers. Then we need systems that at least—

Make sure that all cash-collecting salesmen are bonded.

Indicate clearly on all receipts given to customers that checks must be made to the order of the company and not to salesmen.

See that the receipt books are serially controlled in duplicate.

Investigate carefully all instances in which the customer indicates that a salesman has already been paid.

Follow carefully failure of customers to pay accounts billed on order taken by salesmen.

Have salesmen's orders and cash carefully balanced by someone outside the selling department.

Do not permit salesmen to use sums collected for their expenses—or if this has to be done, make sure that it is properly controlled and recorded.

Require rigid approval of all reductions of customers' accounts, for bad debts, allowances, discounts.

Fixed Asset Management Systems

Part of our record keeping and our reporting to management must concern itself with the detailed property records that at least establish all the details needed to protect our capital investments, furnish the basis for depreciation, and support any claims we may have in any type of loss.

This job is usually accomplished by records of all we spend for fixed assets. These should be fully detailed to give us continuous study of all we own in sufficient detail to: support ownership; aid in all sorts of tax and insurance claims; keep a record of each piece of equipment, showing manufacturer, serial number, model, cost, date of purchase, type of work performed, location; provide for recording all service and costs, dates of inspections, oiling, and repairs.

Part of the job here is to be sure we understand the cost of repairs, replacements, and servicing for each type of equipment. Another part of the job is to avoid mistakes in buying improper equipment. To accomplish these objectives, we need complete records to tell us such things a

Excessive maintenance, repair, servicing, costs for each type of facility.

Product inspection problems caused by particular types of equipment as compared to other types.

Which facilities are most serviceable for your particular process and product.

And our records should permit us to abstract mistakes in buying due to—

Failure to recognize that specialized help is sometimes necessary.

Acquiring equipment that is not of the same standard as other equipment in the office—lack of uniformity.

Purchasing equipment, the use of which, although advantageous, is confined to short periods. Machinery is often acquired in the hope that it can be used in more extended directions.

Failure to consider the space available for installation of the equipment.

Failure to consider noise and other working conditions that will result from some installations.

Failure to consider personnel problems that may arise as a result of installation of automatic equipment.

Failure to use equipment for the purpose for which it was purchased. Too often it is bought for one use and then converted to another.

Record keeping for all these factors is important. And periodical study for management is just as essential. This can come in monthly or other reports by all the plant problems we have been discussing.

Part of the internal control is to insure that a business is carrying all necessary insurance coverage, under properly written policies, at the lowest possible cost for sound insurance.

Adequate records of the policies themselves must be kept and of all data necessary to comply with the requirements of policies. This may mean—

Follow-up system to notify well in advance of each policy expiration. This should include a second reminder on the expiration date in case the policy or a binder acknowledgment has not yet been received.

Record of each policy, showing the name of the company, number, coverage, rate, premium, expiration, and changes, if any, during the policy term.

Account showing the original cost of buildings, machinery, equipment, furniture, and fixtures, and the date and cost of additions or disposals.

Record to help in proving a merchandise loss, showing insurable value of inventories, monthly if possible, so that the amount of insurance may be adjusted if necessary.

The system must insure that insurance carried on building, machinery, equipment, fixtures, and stock is adequate, especially with rising replacement values. It must seek to keep costs down this way—

Adjust the amount of insurance regularly in order to be fully insured when inventory values are up and to avoid paying unnecessary premiums when they are down.

Avoid overinsurance. The amount of protection should be based on the actual replacement value of the property at the time of the fire.

Review coverage from time to time to ascertain whether excessive premiums are being paid on property that has decreased in value.

Check stock against insurance coverage to see whether policies cannot be adjusted downward, unless current higher prices make up the difference; spread coverage properly among actual values of stock, building, and fixtures.

The system should give extra attention to fire prevention. This may be through suggestions from insurance company inspectors or from the National Board of Fire Underwriters and by normal internal reports upon—

Fire hazards, wiring properly insulated, fire shelters and extinguishers, approved containers for inflammable liquids.

Premium savings through improvements in buildings, equipment, and services, as—

Fireproofing of buildings.
Installation and improvement of automatic sprinklers or other fire-fighting apparatus, fire escapes, etc.
Improvement in water supply.
Maintenance of watchmen and private fire brigades.
Arrangement for adequate inspection of premises.

Purchasing, Receiving, Inspection, and Inventory Management Systems

One of the most important portions of the system will govern the management of the purchasing, receiving, inspections of what is purchased. It will also cover the control of the storeskeeping and the inventory.

In addition to systems, management requires a periodical reporting process indicating the efficiency of the controls designed. Consider first the types of systems.

In the purchasing activities, we have to establish systems to guard against inefficiency in buying and in wasted buying. That requires adequate reporting of consumption of what has been bought—against plant use. Just as essential is the reporting device that will guard against collusion between the purchasing agency—and sellers. The normal safeguard is to establish a check on prices paid, goods received, and materials inspected, to be sure that the system affords at least these things—

1. Continuous record of all that is bought, showing vendors and prices obtained—plus the reason for the selection of the particular vendor.
2. Periodical review of the prices by outsiders—perhaps by a management check, or via CPA audit.
3. Continuous checking of the purchasing against the receiving system and the inspection—making sure all these are independently operated.

4. Continuous checking of the competency of purchasing people—particularly in the buying terms, discounting, selection of vendors and their products.

Even good records are easy to circumvent. We must guard material as we would guard cash to reduce errors and losses, to avoid normal, usual frauds, and discourage normal, usual employee collusions. So the system must—

Set up an independent check of material received.

Actually count, weigh, and measure materials received, and check them carefully against purchase orders and purchase requisitions.

See that requisitions withdrawing materials from stores are carefully computed and entered.

Have CPA review process to make certain that it is impossible for stores' people to steal any materials.

Require departments to furnish receipts for materials delivered to them by the storerooms.

Study operations to determine whether alteration of stores requisitions (to cover theft) is possible.

Check the extensions upon requisitions occasionally. Sometimes frauds and errors are disclosed.

All incoming invoices must be checked to minimize ordinary frauds. Our system must automatically check—

Terms, prices, extensions verified, shipping quantities, quality, and everything else needed to be sure we are getting our money's worth. This should be done by someone other than the person who ordered the material.

That the receiving and the inspection are *independent* jobs assuring that we get what we expected to buy.

How should the system control receipt of materials? Of course, it must specify by item which materials are to be weighed, partly counted, or fully counted. It cannot expect employees to be mind readers; it must tell them what has been purchased and how to check it. If left to their own devices, they may incur costs out of proportion on unimportant points.

The system should insure a full report of receipt and inspection before the company pays a bill. It must be certain that the receiving process meets these simple rules to avoid fraud and loss:

Counts, weighs, and measures all incoming materials.

Provides for independent inspection for quality.

Maintains adequate records of receipts.

Records receipt of all materials upon the copy of a purchase order or a receiving report.

Checks freight and transportation charges, and checks whether these are to be charged back to suppliers.

Checks all freight bills for classification and rates, and against freight allowances.

Tabulates results of inspections to inform of the reliability of suppliers.

Insures that the receiving clerks do not conduct negotiations with suppliers about adjustments, rejections, etc.

The inspection is a primary responsibility. It must be made by someone definitely responsible for checking the quantity and quality of material. It should be studied to see—

If a laboratory test is required, what is the economy of securing the necessary equipment.

If extremely technical inspection is required of heavy materials, possibly inspection should be had at supplier's plant either just before shipment or while in process.

Good storeskeeping control is the method of maintaining a balanced inventory. It permits knowing at all times the quantity of each kind of merchandise on hand. It also shows (1) what to buy, (2) when to buy, and (3) how much to buy. Thus, stock control and buying are each a part of the other.

Good inventory control is essential. Stocks of live items do not remain stationary. The bin which is amply full today can be dangerously low in a few days.

Perpetual inventory control can arrange for automatic reordering. This system determines the maximum stock which should be on hand or on order at any one time and the minimum amount below which stocks cannot, with safety, be allowed to drop. Between these extremes is a reordering point. An easy way to control inventories is—

Set up an inventory card in the office, place it in the supply bin, or tack it on the wall nearby.

On it show the maximum and minimum stock figures, the reordering point, the amount to reorder each time, and date of each order placed but not yet received.

Carry running totals of orders received and of removals from the bin or rack so as to show, with reasonable accuracy, the stock on hand.

Two or more times a year, check the card total against the actual count for all stock items.

Make occasional spot checks (a few scattered items at a time) in between regular inventory periods to make sure that employees are noting removals on the cards and that smaller items are not disappearing.

Make certain that you buy according to commonly understood specifications. Then on arrival of the wares, inspect them to see that you are getting just what you ordered.

What instructions should be used on a perpetual inventory card? It should describe the material as it would be entered on an order blank. This is for use in ordering. It also enables proper replace-

ment of cards. It should show how long it takes a shipment to arrive, starting from the day the order leaves the shop. And it should—

Show maximum stock. This is the largest amount of stock estimated to be on hand and on order at any time. Change the figure as business increases or to reflect seasonal variations, when considerable.

Show minimum stock. This is the danger point below which stocks on hand cannot be allowed to drop without taking a chance of running out completely.

Show a reorder point. Considering time required to obtain, enter here the amount of stock on hand that is to serve automatically as the point (time) to place a minimum replacement order. If properly timed, the order will arrive before the stock on hand reaches the minimum figure but not so soon that it will increase stocks on hand above the maximum desired.

Show minimum ordering quantity. Show in this space the size of order to be placed under average conditions.

Make record of orders when placed.

Make record of shipments when received.

Remove material from stores to production only in exact quantities. Change these quantities as experience dictates.

Show your balance on hand—the actual balance on hand. Make no entry in this column for materials on order. Keep this balance up to date after each receipt or withdrawal of material.

If material has been allocated to a job scheduled for the near future, note it here so the reorder point can be stepped up, if advisable.

Get your records set up for good control of the supplies already sent to factory. Be sure that that covers the entire method of bringing in supplies, taking them out, and periodically checking what you are supposed to have left.

Systems to Protect against Employee Frauds

Systems within each business must be designed to curb employee fraud. Of first importance is that our design of all mechanics in the organization be geared to afford real internal check. That is accomplished by—

Requiring that one person substantiate the facts of another by using a different course and procedure.

Requiring approval or authorization of a transaction by a person other than the bookkeeper.

Checking calculations of one clerk by another or by an automatic device.

Arranging office routine so that the work of one person complements that of another.

Continuous audit and test.

The division of work to get the continuous internal check might have a breakup of office and plant functions in which—

One employee records a sale, but another charges the customer's account.
One employee receives the collection, but another records the credit to the customer.
One employee handles the cash, but another keeps the ledger account with cash.
One employee accepts an order, but another receives the goods.
One employee approves the invoices for payment, but another issues the check.
One employee makes up the payroll, but another issues pay checks and takes receipts.

Lax management stimulates all sorts of employee thieving. *How do employees steal?* To complete a list of all the ways they use is impossible. Yet it is important here to put down the most used tricks as a guide toward study of decent systems. Here they are—

Plugging the petty-cash box with false vouchers to cover thefts.
Pocketing cash paid by customers across the counter or in sales on the road.
Stealing money sent in by mail or "forgetting" to enter cash sent in by a customer as payment.
Creating false bills from nonexistent vendors to secure payment for materials or services not delivered—then cashing the check.
Paying out salaries to nonexistent, discharged, or dead employees.
Alteration of legitimate creditors' bills to get a new or added payment, which is then cashed by the cheater; or raising bills after they have been paid to get another check to be cashed.
Sending goods to an imaginary customer and then selling the materials; or reducing the amount entered as the customer's bill in books, then keeping the difference when the customer pays.
Kickbacks, split commissions, and other splittings.

Actual cases of fraud with mail opening has taught us that it is necessary to—

Open the mail under competent supervision away from other people.
Sort it immediately; fasten all papers and mailing documents together with cash or checks received.
Place coin or stamps received in envelopes to prevent loss.
Follow up carefully all complaints that cash was sent but not received; use the facilities of the post office in investigating complaints—they do a competent job.
Find out whether a modern registering machine, which creates a cash record and registers the customer's remittance documents, would be an economy and a protective device.
Make check indorsing only "for deposit" and make it simultaneous with cash recording.
Have entry into bookkeeping record done, if possible, by someone other than the mail openers. Then insist both people prove cash-receipts books daily with entries in customers' ledgers.

All important is to study the way receipts are handled. In this, decent internal control requires that—

Someone other than the cashier take deposits to the bank.

Deposit slips are made in duplicate to receive bank proof and prevent forgery.

Daily deposits are made in banks (if possible, this is done by someone other than the receiving cashier).

All bank statements are reconciled regularly by a person other than the cashier or recording clerk. Reconcile bank balances occasionally at periods other than the close of the month; make certain that "lapping" is not possible (the holding back of funds despite entry in the receipt records); compare your receipts with budgets, standards, and ratios in daily or periodical reports. Investigate all unusual divergencies from forecasts or normal trends.

This is just the beginning of the handling of the incoming cash. Beyond these points we have got to make sure that our system sets up assurances that—

It is impossible for cash to be taken by not reporting sales.

Unauthorized or improper allowances cannot be entered.

It is not possible for cashbooks to be juggled, or forced, particularly in the discount columns.

It is not possible for a charge to be made to an expense account to cover abstracted cash which is to be credited to a customer.

Articles cannot be sold without an entry in the books.

We prove the interest received from customers on their notes and accounts.

We make sure that the proceeds from sales of by-products, waste, etc., are properly protected.

We check all deductions for cash discounts.

We check carefully all deductions from remittances, such as commissions, disputed sales, account payable contras, etc.

We maintain an active control of interest or dividends due on investments.

We make certain that a cashier or salesman cannot misappropriate any payments received on accounts that have been charged off.

How control the disbursing routing? First essential in decent internal control is to set up the purchasing, receiving, inspection, and storeskeeping system so that it cuts down errors, collusions, frauds. That subject is already covered on a prior page. Beyond that, the system must—

Make sure checks are signed by one who thoroughly audits vouchers to see that we have had complete compliance with all instructions concerning purchasing, receiving, inspection, materials handling after receipt. That eliminates a lot of error and employee fraud—particularly by people who: use false invoices; reuse old invoices; raise totals of invoices in cahoots with vendors.

Have checks numerically printed; retain all voided checks; route checks paid and returned by the bank to the clerk other than the issuing one; have

the bank reconciliation made by a disinterested person. That catches frauds by forgery, when a clerk signs a check.

Have an independent check to make certain that vendors' names and indorsements are in accord with vouchers or invoices. If they don't, clerk can easily pay a friend or ally twice as much as the vendor's bill.

Do not permit checks to be issued to cash or bearer. That invites trouble. It is easy for the clerk to pay a fraction of the amount for your legitimate bill.

Make no "pay-outs" from receipts; we must promptly deposit receipts in the bank intact.

Maintain a petty-cash working fund on an imprest basis, rather than by any other method; use a petty-cash custodian—someone other than the general cashier.

Prenumber checks, requisitions and be sure that all are accounted for (none used in an unauthorized manner).

Insist that all journal entries be clearly explained and approved.

Regularly scrutinizing transfers between accounts in different banks; they often cover up peculations.

Thefts from petty cash are the best known methods of employee larceny. So we plan for four simple steps:

1. Require that any request for payment from the petty cash be made out in ink to prevent forgery and reuse.
2. Insist that it be supported by invoices or receipts in every possible case and be approved by some competent official.
3. Mutilate the petty-cash voucher after it has been paid, showing the date of payment, to prevent reuse.
4. Take the vouchers away from the control of the petty cashier—or else you invite easy pickings.

Common systems use at least these requisites to avoid ordinary employee fraud. They make sure vouchers have full details, are made out in ink to prevent forgery and reuse, are properly dated and signed in ink; then mutilated, showing the date of payment to prevent duplicate payment. In addition, it helps if there is—

Support of payments by invoices and receipts in every instance where they can be secured.

Approval of all vouchers by someone thoroughly familiar with requirements, after a complete review.

Storage of paid vouchers away from the control of a disbursing clerk after replenishing the fund so that the cashier does not get them for a second payment.

Totaling of the vouchers and checking for addition.

Vouchers free from alterations and erasures.

Keep studying the possibility of collusion between the cashier and other employees.

Internal control is essential to avoid loss as the result of relations between employees and customers. For example:

Credit references of customers are faked to pave the way for improper transactions.

Clerks sell one quality of goods and deliver inferior stuff. This gives an opportunity for "adjustments" that do not find their way into the accounts.

Improper "kickbacks," split commissions, and like arrangements all benefit some person at the expense of the business.

Experiences warn how to restrict the activities of outside salesmen. We cannot allow outside men to receive cash from customers if we can find some other way to collect. If salesmen must collect from customers, we should indicate clearly on all receipts given to customers that checks must be made to the order of the company and not the salesmen, and we use these rules:

Make sure that all cash-collecting salesmen are bonded.

See that their receipt books are serially controlled in duplicate.

Investigate carefully all instances in which the customer indicates that a salesman has already been paid.

Follow carefully failure of customers to pay accounts billed on orders taken by salesmen.

Have salesmen's orders and cash carefully balanced by someone outside the selling department.

Don't permit salesmen to use sums collected for their expenses; if this has to be done, make sure that it is properly controlled and recorded.

How can we stop over-the-counter sales thefts? Sales across the counter always offer the opportunity for error—as when the customer pays and the employee pockets the money. We have to do this:

When salespeople must take the cash, have them give a receipt that is serially controlled in duplicate.

Educate the customer to understand the necessity for a receipt and to demand it.

Inform customers that a receipt is essential to secure subsequent adjustments of accounts.

Maintain a perpetual inventory of stock in stores where counter sales are made.

Make sure that counter salespeople can secure stock from no other source.

Don't permit collecting counter salespeople to disburse any funds received.

Utilize the protection of modern equipment for counter sales, particularly cash registers, autographic registers, charge registers. Balance sales registered with cashier's funds daily. If possible, have the actual balancing performed by persons other than the sales or cashier's group.

One way to avoid fraud in collection of charge accounts is to divorce the people handling the customers' ledgers and those who handle collection of charge accounts. And the system should require rigid approval of all reductions of customers' accounts for bad debts, allowances, discounts. It should do this, too:

Review all reductions of accounts carefully.

Make the mailing of customers' statements a function of the accounting department.

Make certain that reduction can be charged to no place other than the account provided.

See that the cashier registers funds immediately upon receipt.

If the registry is by a duplicate receipt, number it serially so as to control it fully.

Make sure to place cashiers under bond.

Have independent persons in office or CPA's balance the cashier's funds and salespeople's registers.

See that the cashier does not make disbursements from receipts; an imprest fund is usually more advisable.

See that the cashier, if he receives money on charge accounts, does not have access to the ledgers.

Make sure that the person making deposits is protected and bonded. Be certain that the firm has full insurance to cover highway robbery. Make use of the most accessible bank.

Tax Accounting Problems

Part of your system must consider the tax law. You do not always pay a tax on what your system might call income, and you do not always get a deduction for what you show as cost of operations.

The many divergencies between accounting prescribed by Regulations and court decisions, on the one hand, and generally accepted accounting principles on the other, have become a continuous source of irritating adjustments. The law and the Regulations provide simple rules—

1. The net income shall be computed in accordance with the method of accounting regularly employed in keeping the books of the taxpayer. If it does not, the computation is made by a method which the Commissioner believes clearly to reflect the income.
2. Although net income is a statutory concept, it generally follows the lines of commercial usage.
3. If the method of accounting regularly employed clearly reflects income, it is to be followed to find the period when items of gross income and deductions are to be accounted for.
4. No uniform method of accounting can be prescribed. The law contemplates that each business shall adopt forms and systems of accounting that are best suited to it.

Despite these clear directions, you need a guide at times to carry you through the welter of inconsistencies.

But tax rulings and tax cases have created distortions from good business practices and good accounting concepts.

Tax savings can be had in accounting if you know the distortions caused by the rulings. If you are to take full advantage of the distortions, it is essential to check all your business transactions periodically. If your accounting is on a generally acceptable basis (so far as your bankers, stockholders and public accountants are concerned), it may have to be radically altered for tax returns. And the alterations may very often be to your great tax advantage if you know them.

Result of all this is that our accounting system must segregate, identify, and reflag all we will need when we get to our tax accounting.

If, in your particular business you want a record of the differences between normal accounting and tax accounting—get a copy of *Handbook of Tax Accounting Methods*.*

* *Handbook of Tax Accounting Methods*, edited by J. K. Lasser, D. Van Nostrand Co., Inc., New York, N. Y., 1951.

SECTION II

SYSTEMS USED IN THE SPECIFIC INDUSTRIES*

* Listed Alphabetically on page following.

ALPHABETICAL LIST OF CONTRIBUTED ARTICLES BY SUBJECT MATTER

ACCOUNTING FOR ADVERTISING AGENCIES

By
Lucius H. Coleman*

Brief Description of Business

Originally an advertising agency consisted of brokers who limited their activities to the placement of advertising space with newspapers and magazines. In a comparatively few years this business has developed into a major factor in industry. The advertising agency of today is an organization which not only conceives and supervises the complete advertising campaign but often plans the sales program, renders merchandising counsel, and assists as specialist in the establishment of sales policies for its clients. The most recent development among the more progressive agencies is the establishment of their own research departments. Even the medium-sized agencies of today have so progressed as to include their own copy writers, artists, and production staffs.

The principal source of the agency's income is commissions earned for placing advertisements. In practice, these commissions represent the discount allowed to the agency by the publication or other vendor of media, usually representing 15 per cent of scheduled rates. The agency is billed by the publication at the scheduled rate less the 15 per cent commission, and the agency in turn bills its clients at the full scheduled rate. Advertising media may include magazines, newspapers, radio, car cards, billboards, and the like.

Another source of an agency's income is the customary fee or service charge, usually representing compensation for advertising and sales promotion counsel, or for services in connection with the placing of ads in noncommission media. Besides these duties, the agency must make expenditures for production costs in connection with the preparation of the ad, such as art work and mechanical

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costs or, in the case of radio, for the engagement of talent. These items are usually billed to the client at cost plus 15 per cent.

The account executive is the key man in the agency. He is the contact man between the agency and its client. Experience has indicated that the interests of the agency and its clients are best served by having the same agency representative conduct all interviews and transactions with a client. The duties of the account executive begin when an inquiry is received from a prospective client. In his preliminary visits to the advertiser, it is necessary for him to obtain a general background of the prospect's company and of his product.

To assist him in formulating the plan of an advertising campaign the account executive must have available to him such information as sales statistics, the manufacturing facilities of the company, and a thorough knowledge of the company's products. If the agency maintains a research department, the account executive calls upon it to supply him with additional market information. Through the medium of questionnaires and field representatives, vital statistics are here obtained and analyzed.

Information becomes available with respect to (1) consumer appeal and comment, (2) retailers' sales methods and comment, and (3) distribution outlets (national, local, regional jobbers, company salesmen, direct mail, etc.)

Equipped with this knowledge, the account executive plans his campaign. With the assistance of the centralized art, copy, and production departments, sketches and layouts are prepared. Likewise, proposed advertising schedules are drawn up indicating the media intended for use in the campaign. It should be noted that throughout the development period the account executive is in constant touch with the client, informing him of the progress being made and receiving his approval wherever necessary.

Theory of Accounts

Since the activities of the agency consist of creating and producing a finished ad for the client, it is necessary to maintain a system of accounts which reflects and accumulates in detail the cost of each individual product. The extent of these accounts vary in proportion to the size of the agency and to the information required by its management. However, certain accounts are peculiar to the

industry, which are normally included in the accounting system of most agencies.

Accounts Required

Mechanical Costs

Mechanical costs include such tangible components of an ad as typography, engravings, plates, paper, printing, photographs, and models. Upon its inception, each job is assigned a number; a job envelope is prepared and in it are filed duplicate copies of all creditors' invoices pertaining to the job. The details and amounts of the invoices are entered upon the face of the envelope, which is designed to provide for the accumulation of mechanical costs and art costs. The treatment of art costs is hereinafter described in further detail.

The job envelopes constitute a subsidiary ledger of work in process. Upon completion of a job, the total of the accumulated mechanical costs appearing on the face of the envelope is used as the basis for billing. The bill number and date billed are entered upon the face of the envelope and it is then removed from the active work in process file.

The general ledger accounts controlling the mechanical costs are: (1) inventory and work in process—mechanical and (2) cost of mechanical sales.

The original creditors' invoices which affect mechanical costs are entered in the Record of Invoices—Other Than Media, and distributed to Inventory and Work in Process—Mechanical. The total of this column is posted at the end of the month to the general ledger, the entry being:

Dr.—Inventory and Work in Process—Mechanical, Account 21
Cr.—Accounts Payable—Regular, Account 104

The record of sales—other than media-Columns are provided for mechanical sales and cost of mechanical sales, allowing for the entry of the billing price and the cost of each job. The total of Cost of Mechanical Sales is charged to Cost of Mechanical Sales, Account 228, in the general ledger and a corresponding credit is made to Inventory and Work in Process—Mechanical, Account 21.

For purposes of internal check, some agencies deem it advisable to operate a dual set of mechanical inventory and work in process records. Where this is the case, the production department proceeds with compilation of costs as described above. The account-

ing department, which receives the original of all creditors' invoices, maintains a record similar in appearance to the face of the job envelope. A loose-leaf book wherein each job is assigned a separate page may be provided for this purpose.

If the production department's records are kept accurately, the amount of additional work entailed is practically negligible and the dual plan is advantageous for the following reasons: (1) the production department is better able to control and visualize the work as it progresses; (2) it creates an internal check between the accounting and the production departments for the accuracy of the inventory, the basis for the billing, and eliminates the possibility of failure to bill properly any one job; and (3) it enables the production department to bill for mechanics and art work and thus relieve a possible bottle-neck in the accounting department.

Before filing the creditors' invoices in the unpaid bills file, the accounting department sorts the invoices by job number and enters them on the corresponding cost sheets. When a job is completed and billed, the bill number and date are entered upon the cost sheet. The sheet is then removed from the active binder and filed in the completed job file. At the end of the month, the accounting department abstracts a schedule of the unbilled items which must agree with the schedule prepared by the production department and with the general ledger account, Inventory and Work in Process—Mechanical. By this method, any errors which may be made can be easily located.

Art Costs

Art costs, which an agency may incur in connection with the preparation of an ad, consist of the cost of outside artists' services and the expense of the agency's own art department. In the case of outside artists, the procedure with respect to cost compilation is rather simple. Invoices submitted by the artists are allocated to the respective jobs and are entered in the art cost section of the job envelopes in the same manner that mechanical costs are entered.

The problem of costing out the agency's own art department services and expenses presents additional complications. Staff artists' salaries and the art department expenses are charged to Art Department Expenses, Account 301, maintained in columnar form in the general ledger so as to show the details of each subaccount. Each artist is required to account daily for his time by preparing in

duplicate at the conclusion of each day a time slip for each job upon which he may have worked.

The time slips are sorted and totaled by jobs. The originals are routed to the production department, which enters the art costs upon the face of the job envelopes and files the slips within the corresponding envelopes. The duplicate copies are turned over to the accounting department where they are summarized daily by adding the time slips pertaining to each job and listing the totals thereof upon a daily art department time summary, omitting such slips as represent nonproductive time. In determining the hourly rate to be used in costing out the artists' time, care should be exercised, to make it sufficient to cover the artists' salaries, and the art department's expenses. The rate may be computed by dividing the art department's expenses (including salaries) for a given period by the number of productive hours of work in the department—total time of actual work less nonproductive time.

The daily art department time summary sheets are totaled at the end of the month and provide the basis for the following journal entry:

Dr.—Inventory and Work in Process—Art, Account 22
Cr.—Art Department Expenses, Account 301

At the end of each month, the remaining balance (debit or credit) in the Art Department Expenses account should be nominal. This balance is transferred to Cost of Art Sales, Account 229.

Upon completion of a job, the art costs are obtained from the job envelopes and the totals are entered in the record of sales—other than media, under Cost of Art Sales. The posting from this column is as follows:

Dr.—Cost of Art Sales, Account 229
Cr.—Inventory and Work in Process—Art, Account 22

The open items of unbilled art appearing on the individual job envelopes will constitute the schedule of art work in process (inside and outside) and should agree with the general ledger controlling account, Art Work in Process.

In the record of sales—other than media, two cost columns are provided for direct mail sales. Inasmuch as direct mail costs include both mechanical and art elements it is necessary to credit two inventory and work in process accounts at the end of each month as expressed by the journal entry:

Dr.—Cost of Direct Mail Sales, Account 227
Cr.—Inventory and Work in Process—Mechanical, Account 21
Cr.—Inventory and Work in Process—Art, Account 22

Media

Before contracting for any space, advertising schedules outlining the proposed campaign are submitted to the client for approval. Upon signed acceptance of the schedule, space is contracted for by the agency using standard insertion order forms for the purpose. Each publication issues rate and payment schedules which must be complied with by the agency. It is the general policy of agencies to have their clients remit for media bills prior to the publication's prescribed date of payment so as to avoid unnecessary financing. The following example shows a typical schedule of a publication and indicates the usual financing policy of an agency:

Magazines	Date Publication is Released	Date of Closing	Date Bill Is Submitted to Client	Date Bill Is Rendered by Publisher	Date Bill Is to Be Paid by Client	Date Bill Is to Be Paid to Publisher
Publication # 1 (weekly)	Dated Saturday; on sale Wednesday preceding issue date	*Black & White Ads* Last forms close 5 weeks preceding publication date *Color Ads* 8 weeks	1st of month of publication date	20th of month of publication date	27th of month of publication date	Last day of month of publication date

Most agencies do not bill media with mechanical and art production. A simple and effective plan to assure the agency that all media charges are billed to clients, and one which, at the same time, provides an accounts payable voucher system for media, might well be described here.

The invoices used for billing media are so designed that the duplicate and triplicate extend about three inches to the right of the original. The scheduled rates billed to the client appear on the original and on the two copies of the invoice. The amount payable to the publication by the agency is entered upon the extended portion of the duplicate and the triplicate. The duplicate is filed numerically and constitutes the voucher register with respect to media

accounts payable as well as to the record of space cost of sales. All triplicate copies may be filed alphabetically according to client's name so that all media transactions for a client will be filed together. The totals of the amounts billed to clients are entered in the record of media sales, in the proper media sales column, and the cost is entered in the corresponding cost of media sales column. At the end of the month, the general ledger entries are:

Dr.—Accounts Receivable, Account 12
Cr.—Media Sales—Magazine, Account 202
(And other media sales accounts)
Dr.—Cost of Media Sales—Magazine, Account 221
(And other media cost of sales accounts)
Cr.—Accounts Payable—Media, Account 103

As the publications are paid, the respective items in the extended portion of the duplicate invoices are stamped with the payment date, and the open items constitute accounts payable—media schedule.

Only those accounts peculiar to the operation of an agency and the more important records of original entry are described herein. Other accounts commonly needed to reflect ordinary business operations are not mentioned, but are indicated in the chart of general ledger accounts presented below:

ASSETS

Current Assets
Cash
1—Petty Cash Fund
2—Banks
Accounts and Notes Receivable
11—Notes Receivable
12—Accounts Receivable
13—Reserve for Bad Debts
Inventories and Work in Process
21—Mechanical
22—Art
Investments
26—U. S. Government, State, and Municipal Securities
27—Life Insurance—Cash Surrender Value
Fixed Assets
31—Land
32—Buildings
33—Reserve for Depreciation on Buildings
34—Furniture, Fixtures, and Equipment
35—Reserve for Depreciation—Furniture, Fixtures, and Equipment
36—Leasehold Improvements
37—Reserve for Amortization of Leasehold Improvements
Other Assets
Deferred Charges
41—Unexpired Insurance
42—Pepaid Interest
43—Prepaid Taxes
44—Other Deferred Charges
Other
51—Sundry Accounts Receivable
52—Investments—Other Than Marketable Securities

LIABILITIES

Current Liabilities
Notes Payable
101—Notes Payable—Bank
102—Notes Payable—Other
Accounts Payable
103—Accounts Payable—Media
104—Accounts Payable—Regular

Accrued Taxes
- 105—Federal Income and Excess Profits
- 106—State Income and Profits
- 107—Federal Capital Stock
- 108—Federal Unemployment Insurance
- 109—Federal Old-Age Benefit
- 110—State Unemployment Insurance
- 111—Employee Pay-Roll Contributions
- 112—Sales Tax Payable

Other
- 116—Accrued Pay Roll
- 117—Accrued Expenses
- 118—Sundry Accounts Payable

CAPITAL

- 151—Preferred Stock—Authorized
- 152—Preferred Stock—Unissued
- 155—Common Stock—Authorized
- 156—Common Stock—Unissued
- 160—Surplus
- 161—Dividends on Preferred Stock
- 162—Dividends on Common Stock
- 163—Profit and Loss

INCOME ACCOUNTS

- 201—Retainer Fees
- 202—Media Sales—Magazine
- 203—Media Sales—Newspaper
- 204—Media Sales—Trade Paper
- 205—Media Sales—Car Card
- 206—Media Sales—Billboard
- 207—Media Sales—Radio
- 208—Direct Mail Sales
- 209—Mechanical Sales
- 210—Art Sales

COST OF SALES ACCOUNTS

- 221—Cost of Media Sales—Magazine
- 222—Cost of Media Sales—Newspaper
- 223—Cost of Media Sales—Trade Paper
- 224—Cost of Media Sales—Car Card
- 225—Cost of Media Sales—Billboard
- 226—Cost of Media Sales—Radio
- 227—Cost of Direct Mail Sales
- 228—Cost of Mechanical Sales
- 229—Cost of Art Sales

EXPENSES

Operating Expenses
- 301—Art Department Expenses (Analyze as needed)
- 302—Copy Department Expenses (Analyze as needed)
- 303—Research Department Expenses (Analyze as needed)
- 304—Production Department Expenses (Analyze as needed)

Selling Expenses
- 311—Sales Salaries
- 312—Sales Commissions
- 313—Advertising
- 314—Publicity
- 315—Traveling

Administrative Expenses
- 321—Officers' Salaries
- 322—Office Salaries
- 323—Rent
- 324—Telephone and Telegraph
- 325—Light
- 326—Stationery and Office Supplies
- 327—Insurance
- 328—Dues and Subscriptions
- 329—Postage
- 330—Carfares and Suppers

Other Expenses

Taxes
- 341—Federal Income and Excess Profits
- 342—State Income and Profits
- 343—Federal Capital Stock
- 344—Federal Old-Age Benefit
- 345—Federal Unemployment Insurance
- 346—State Unemployment Insurance
- 347—Real Estate

Depreciation
- 351—Buildings
- 352—Furniture, Fixtures, and Equipment
- 353—Amortization of Leasehold Improvements

Bad Debts
- 360—Bad Debts

OTHER INCOME

- 401—Discounts Earned
- 402—Miscellaneous Income

DEDUCTIONS FROM INCOME
- 411—Discounts Allowed
- 412—Interest Expense

A typical Balance Sheet and Profit and Loss Statement for an advertising agency follow:

BALANCE SHEET

ASSETS

Current Assets			
Cash:			
In Banks		$ xxx	
On Hand		xxx	$ xxx
Notes Receivable			xxx
Accounts Receivable:			
Current Accounts		xxx	
Past Due:			
1-30 days	$ xxx		
Over 30 days	xxx	xxx	
Total		xxx	
Less-Reserve for Bad Debts		xxx	xxx
Inventory and Work in Process:			
Mechanical		xxx	
Art		xxx	xxx
Investments:			
U. S. Government, State and Municipal Securities		xxx	
Life Insurance—Cash Surrender Value		xxx	xxx
Total Current Assets			xxx
Fixed Assets			
Land		xxx	
Buildings	xxx		
Less—Reserve for Depreciation	xxx	xxx	
Furniture, Fixtures and Equipment	xxx		
Less—Reserve for Depreciation	xxx	xxx	
Leasehold Improvements	xxx		
Less—Reserve for Amortization	xxx	xxx	
Total Fixed Assets			xxx
Other Assets			
Deferred Charges:			
Unexpired Insurance	xxx		
Prepaid Interest	xxx		
Prepaid Taxes	xxx		
Other Deferred Charges	xxx	xxx	
Other:			
Sundry Accounts Receivable	xxx		
Investments—Other than Marketable Securities	xxx	xxx	
Total Other Assets			xxx
Total Assets			$ xxx

LIABILITIES AND CAPITAL

Current Liabilities		
Notes Payable:		
To Banks	$ xxx	
Other	xxx	$ xxx
Accounts Payable:		
Media	xxx	
Regular	xxx	xxx
Accrued Taxes:		
Federal Income and Excess Profits	xxx	
State Income and Profits	xxx	
Federal Capital Stock	xxx	
Federal Unemployment Insurance	xxx	
Federal Old Age Benefit	xxx	
State Unemployment Insurance	xxx	
Employee Pay Roll Contributions	xxx	
Sales Tax Payable	xxx	xxx
Other:		
Accrued Pay Roll	xxx	
Accrued Expenses	xxx	
Sundry Accounts Payable	xxx	xxx
Total Current Liabilities		xxx
Capital		
Capital Stock:		
Preferred Stock—Issued and Outstanding	xxx	
Common Stock—Issued and Outstanding	xxx	
Total Capital Stock	xxx	
Surplus	xxx	
Total Capital		xxx
Total Liabilities and Capital		$ xxx

STATEMENT OF INCOME AND EXPENDITURE

	Sales	Cost of Sales	Gross Income
GROSS INCOME			
Retainer Fees	$ xxx	$ xxx	$ xxx
Media:			
Magazine	xxx	xxx	xxx
Newspaper	xxx	xxx	xxx
Trade Paper	xxx	xxx	xxx
Car Card	xxx	xxx	xxx
Billboard	xxx	xxx	xxx
Radio	xxx	xxx	xxx
Direct Mail	xxx	xxx	xxx
Mechanical	xxx	xxx	xxx
Art	xxx	xxx	xxx
Total Gross Income	xxx	xxx	xxx
EXPENSES			
Operating Expenses:			
Art Department Expenses	xxx		
Copy Department Expenses	xxx		
Research Department Expenses	xxx		
Production Department Expenses	xxx		
Total Operating Expenses		xxx	
Selling Expenses:			
Sales Salaries	xxx		
Sales Commissions	xxx		
Advertising	xxx		
Publicity	xxx		
Traveling	xxx		
Total Selling Expenses		xxx	
Administrative Expenses:			
Officers' Salaries	xxx		
Office Salaries	xxx		
Rent	xxx		
Telephone and Telegraph	xxx		
Light	xxx		
Stationery and Office Supplies	xxx		
Insurance	xxx		
Dues and Subscriptions	xxx		
Postage	xxx		
Carfares and Suppers	xxx		
Total Administrative Expenses		xxx	
Taxes:			
State Income and Profits	$ xxx		
Federal Capital Stock	xxx		
Federal Old Age Benefit	xxx		
Federal Unemployment Insurance	xxx		
State Unemployment Insurance	xxx		
Real Estate	xxx		
Total Taxes		xxx	

	Sales	Cost of Sales	Gross Income
Depreciation:			
Buildings	xxx		
Furniture, Fixtures and Equipment	xxx		
Amortization of Leasehold Improvements	xxx		
Total Depreciation		xxx	
Bad Debts		xxx	
Total Expenses			xxx
Balance Income			xxx
Other Income			
Discounts Earned		xxx	
Miscellaneous Income		xxx	
Total Other Income			xxx
Deductions from Income			
Discounts Allowed		xxx	
Interest Expense		xxx	
Total Deductions from Income			xxx
Net Income, before Provision for Federal Income and Excess Profits Taxes			xxx
Provision for Federal Income and Excess Profits Taxes			xxx
Net Income, Transferred to Surplus			$ xxx

Bookkeeping Methods

The books of original entry in the bookkeeping system of an average agency usually consist of the following:

Invoices—Other than Media provides for the entry of all creditors' invoices other than media. This will include art and mechanical charges as well as all expense bills.

Sales—Other than Media provides for the entry of all bills rendered to clients, other than for media charges, such as retainer fees, art, mechanical, and direct mail sales. As described hereinbefore, the costs applicable to each sale are obtained from the job envelopes and set up against each sale.

Media Sales provides for the entry of all bills rendered to clients for media charges, such as magazines and newspapers. The respective costs are likewise entered against each sale.

Cash Receipts provides for the entry of all cash received from clients and others.

Cash Disbursements provides for the entry and account distribution of all checks issued.

Pay Roll provides for a distribution of the payroll by departments, such as Art Salaries, Copy Salaries, and Research Salaries.

Petty Cash provides for the entry of the disbursements from the petty cash fund, columnarized so as to allow for account distribution.

Journal provides for the entry of all transactions which ordinarily cannot be entered in any of the other books of original entry.

Other records which complete the system are:

General Ledger
Accounts Receivable Ledgers
Accounts Payable:

Media—extended portion of duplicate copies of invoices rendered to clients, as described earlier under "Media."

Other than Media—in voucher register form provided by the Record of Invoices—Other than Media.

Inventory and Work in Process Ledger—Art and Mechanical consists of a member of job envelopes wherein the costs of each job are accumulated.

Employees' Earnings Record is used for social security and unemployment insurance reports.

ACCOUNTING FOR A MANUFACTURER OF AIRCRAFT OR AIRCRAFT PARTS

By
WALTER B. MEIGS*

BRIEF DESCRIPTION OF BUSINESS

The aircraft industry is composed of (1) manufacturers of aircraft, (2) manufacturers of aircraft parts and subassemblies, and certain specialized service organizations, and (3) manufacturers of aircraft engines. For many years the great bulk of aircraft production has been under government contracts; this factor, along with certain technological problems, has been largely responsible for the separation of the industry into these productive divisions. Contracts are entered into by the prime producers, who, in turn, subcontract with lesser concerns for parts, assemblies, and services. These subcontracts are often passed down through several tiers, and it is not uncommon to find a thousand or more subcontractors producing for a single prime contractor. The prime producers consist of a relatively few large corporations which have already developed their accounting policies and, therefore, will be referred to only incidentally in this discussion. The manufacture of aircraft engines is becoming more and more a part of the automobile industry; it will not be discussed here because it represents in many respects a separate industry. The major emphasis of this material will, therefore, be placed on the accounting methods and policies adaptable to the many producers of aircraft parts and assemblies, and to the businesses which perform specialized services for the aircraft manufacturers. These companies are numerous and, in many instances, have been hastily formed to meet the growing demand for aircraft. As a consequence, many do not have adequate accounting systems or the experience needed to formulate effective accounting policies.

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The presence of government contracts has been largely responsible for the special characteristics of the industry. Financing has been carried on with the aid of the government through V-loans, advances on contracts, and specialized forms of contracts, such as the cost-plus-fixed-fee type. Plant and equipment, much of which was acquired in World War II, have in many cases been fully amortized under certificates of necessity granted by the War Department. These certificates of necessity are again being granted to permit similar accelerated amortization of plant and equipment now under construction.

Research and engineering are major factors in maintaining competitive position. Engineering and research are carried on continuously for the improvement of existing products and for the development of new models. Approximately one hour of engineering is spent for each four hours in the factory, resulting in high developmental and improvement costs, all of which must receive careful accounting attention.

Government contracts usually set forth certain principles which must be adhered to in accounting. Only such costs as meet the accounting regulations prescribed by the government are recoverable under the contracts. Government auditors are stationed at the plants of large aircraft manufacturers; it is essential that accounting techniques and controls be of a caliber that will satisfy government audit standards. Since most contracts are also subject to government renegotiation, the accounting policies should provide adequate records to facilitate the reports and analyses required as a basis for intelligent renegotiation.

Objectives of the Accounting System

Since the major customer of the aircraft industry is the government, the accounting system designed for a concern within the industry should be directed toward providing information made necessary by the various forms of contracts in use and toward fulfilling the accounting requirements set forth in these contracts. In most instances, government contracts are essential to the existence of the business, and their provisions have a powerful influence on the company's accounting policies. The greatest emphasis, therefore, should be placed on contract costs. Whether the contract be cost-plus-fixed-fee, fixed price, or an incentive type, cost accumu-

lation is essential. Under the cost-plus-fixed-fee contract, allowable cost as determined by governmental regulations is recoverable with an agreed profit allowance. In such cases, cost becomes the basis for billings and income. Under fixed price or incentive contracts, cost figures are used statistically to determine the amount reimbursable to the contractor or the amount of his original bid. Other types of contracts provide for increases in contract prices to reflect changing price levels for cost factors. These so-called escalator-clauses also put an emphasis on accurate accounting for costs on individual contracts.

The types of cost which must be accounted for in the aircraft industry are separable into (1) development and research cost, and (2) factory cost. Developmental and research costs arise from the testing of ideas and the conducting of experiments for new processes and products, or for the improvement of existing production methods and products. The cost of developing new products or production facilities is to be accumulated separately until such time as it can be charged against a contract or purchase order, whereas the cost of improving existing products may, in many cases, be absorbed against the particular contract. In either case differentiation must be made in the accounts for these types of cost, some of which are currently recoverable, others being chargeable against future operations.

Factory cost is the sum of direct material, labor, and allocated factory expenses. It is the final charge to the finished product. For accurate accounting of factory cost, the following principles govern:

(1) Cost classifications must be uniform within contracts and from one accounting period to another. Variations in cost classification will reduce the value of comparative statistics and will also make the records unacceptable to government auditors.

(2) In developing cost classification, all labor and material which can reasonably be traced to jobs should be treated as direct cost, insofar as such costs are permitted by contract.

(3) In allocating indirect costs, only the acceptable basis of allocation should be used in conformity with government contracts.

Related to the problem of accounting for cost is that of the plant and equipment records. Depreciation in the aircraft industry is a heavy cost because of large initial investment in plant and machinery, and accurate provisions for depreciation must necessarily

be based upon adequate plant records. When certificates of necessity are obtained, the assets concerned should be segregated so that they will be amortized on an accelerated basis. Such properties are often continued in use after being fully amortized; the property records should be designed to show both normal depreciation and accelerated amortization. On one hand, overdepreciation of assets will lead to disallowance of cost for contract, renegotiation, and income tax purposes; on the other hand, underdepreciation of plant and property will cause sales below cost, depletion of capital, doubtful statistical statements, and higher taxes.

Aside from the problems directly or indirectly arising from accounting for cost, there are few characteristics of systems used in the aircraft industry which differ from ordinary industrial accounting. Assets other than plant and equipment and deferred development and experimental costs are treated much the same as in other manufacturing concerns. Although inventories are high in the aircraft industry because of the prolonged production process, the problems relating thereto are part of the larger problem of cost accounting. The liability and capital structure differ from other manufacturing companies principally by reason of extensive use of advance payments and by the necessity of showing a provision for renegotiation of contract prices. Government contracts are subject to revision of prices upward or downward after actual cost of production has been determined. The accounting system must therefore provide for this factor.

In summary, then, the emphasis in a system of accounting for an aircraft business is upon:

1. The accumulation of direct and indirect factory costs chargeable to jobs or contracts.
2. The recording of plant property and equipment for the purpose of providing accurate allocations of depreciation as the assets are used in producing revenues.
3. The compiling of developmental and experimental costs and their final disposition.
4. The provision of an adequate estimated amount to cover refunds resulting from renegotiations.
5. The satisfaction of contract requirements and governmental regulations.

Suggested Chart of Accounts

No standard system of accounts can be set up for the aircraft industry as a whole because of the diverse types of businesses con-

ducted within the industry. The suggested chart of accounts which follows is typical of many manufacturing concerns and will generally apply to accounting systems for the aircraft industry. Accounts that are commonly found in manufacturing concerns will not be explained; however, comments on specific deviations will be presented.

1. *Assets*
    - 11. Current assets
        - 111. Cash
            - 1111 Cash in bank
            - 1112 Imprest fund
        - 112. Marketable securities
            - 1121 Marketable securities
            - 1122 Adjustment to market value
        - 113. Notes and accounts receivable
            - 1131 Contracts with prime producers
            - 1132 Contracts with subcontractors
            - 1133 U. S. Government
            - 1134 Other trade receivables
            - 1135 Due from officers and employees
            - 1136 Due from affiliates
            - 1139 Notes receivable
            - 1139A Estimated doubtful accounts
        - 114. Inventories
            - 1141 Raw materials
                - 11411 Materials purchased
                - 11412 Subassemblies and parts purchased
            - 1142 Manufacturing supplies
            - 1143 Work in process
            - 1144 Work in process in service organizations
            - 1145 Finished jobs
        - 115. Prepaid expenses
            - 1151 Prepaid taxes
            - 1152 Prepaid insurance
            - 1153 Other prepaid expenses
    - 12. Investments
        - 121. Subsidiaries
        - 122. Other investments
    - 13. Plant, property, and equipment
        - 131. Land
            - 1311 Land—fully amortized
            - 1312 Land—under certificates of necessity
            - 1313 Land—other
            - 1319A Amortized cost of land
        - 132. Buildings and structures
            - 1321 Buildings—fully amortized
            - 1322 Buildings—under certificates of necessity
            - 1323 Buildings—other
            - 1323A Amortized cost of buildings

- 1323B Estimated depreciation on buildings
- 1325 Structures
- 1325A Estimated depreciation on structures

133. Machinery and equipment
- 1331 Machinery—fully amortized
- 1332 Machinery—under certificates of necessity
- 1333 Machinery—other
- 1334 Shop, fixtures, and equipment
- 1334A Estimated depreciation on machinery and equipment

134. Tools and instruments
- 1341 Tools
- 1342 Electrical instruments
- 1343 Molds, dies, and jigs

136. Automobiles and trucks
- 1361 Automobiles and trucks
- 1361A Estimated depreciation, automobiles and trucks

137. Furniture and fixtures
- 1371 Furniture and fixtures
- 1371A Estimated depreciation on furniture and fixtures

138. Construction work in progress

14. Intangible and other assets
- 141. Deferred development costs
- 142. Goodwill
- 143. Patents
- 144. Other assets

2. *Liabilities*

21. Current liabilities

211. Notes and accounts payable
- 2111 Notes payable—banks
- 2112 Notes payable—other
- 2113 Accounts payable—trade

212. Accrued liabilities
- 2121 Accrued payroll
- 2122 Accrued taxes
- 2123 Accrued interest
- 2124 Other accruals

- 213. Government loans
- 214. Completion costs of contracts filled
- 215. Advance payments received on contracts
- 216. Federal income and excess profits taxes payable
- 217. Provision for revision of contract prices
- 219. Other current liabilities

22. Long-term liabilities
- 221. Bonds payable
- 222. Other long-term liabilities

23. Capital
- 231. Capital stock
- 232. Paid in surplus
- 234. Earned surplus

31. Sales
    311. Gross contracts billed
    312. Gross sales billed
    313. Returns and allowances
    314. Freight out
41. Cost of goods sold
    411. Manufacturing cost of sales billed—contracts
    412. Manufacturing cost of sales billed—other
    413. Freight out
51. Manufacturing expenses
    511. Supervision—factory
        5111 Supervisor
        5112 Foremen
        5113 Inspectors
    512. Factory office
    513. Indirect labor
        5131 Internal transportation
        5132 Guards
        5133 Sweepers and oilers
        5134 Helpers
        5135 Yardman
        5136 Other indirect labor
    514. Ancillary labor costs
        5141 Overtime
        5142 Idle time
        5143 Vacations
        5144 Payroll taxes
        5145 Instruction
        5146 Other ancillary labor costs
    515. Personnel relations
        5151 Group insurance
        5152 Health service
        5153 Restaurant service
    516. Factory supplies
        5161 Lubricants, oils, etc.
        5162 Heat, light, and power
        5163 Water
        5164 Fuel
        5165 Miscellaneous supplies
    517. Maintenance and repairs
        5171 Maintenance—buildings
        5172 Maintenance—structures
        5173 Maintenance—machinery
        5174 Maintenance—shop fixtures
        5175 Maintenance—electrical instruments
        5176 Maintenance—autos and trucks
        5177 Maintenance—other
    518. Fixed charges
        5181 Insurance
        5182 Taxes

5183 Depreciation
5184 Amortization of facilities
5185 Miscellaneous fixed charges
519. Other factory expenses
5191 Rearrangement of equipment
5192 Telephone, telegraph, and postage
5193 Traveling
5194 Factory yard
5195 Defective and spoiled work
5196 Sundry factory expenses
520. Applied manufacturing expenses
521. Disallowed costs
61. General and administrative expenses
611. Salaries and commissions
6111 Salaries—officers
6112 Salaries—sales
6113 Salaries—engineers
6114 Salaries—accounting
6115 Salaries—general office
6116 Salaries—other
612. Ancillary salary costs
6121 Payroll taxes
6122 Personnel relations
6123 Other ancillary salary costs
613. General office expenses
6131 Maintenance
6132 Heat, light, and power
6133 Telephone, telegraph, and postage
6134 Stationery and supplies
6135 Alteration of office
6136 Other general office expense
614. Professional and corporate expenses
6141 Legal
6142 Auditing
6143 Directors
6144 Transfer and recording fees
615. Advertising and sales promotion
6151 Advertising
6152 Catalogues
6153 Publicity and customer service
6154 Miscellaneous advertising
616. Fixed charges
6161 Insurance
6162 Taxes
6163 Depreciation
6164 Amortization of facilities
6165 Miscellaneous fixed charges
617. Other general administrative expenses
6171 Traveling
6172 Entertainment

6173 Donations
6174 Freight and express
6175 Miscellaneous general administrative expenses

71. Other income
    711. Investment income
    712. Interest income
    713. Purchase discounts
    714. Miscellaneous other income
81. Other expenses
    811. Interest expense
    812. Bad debts
    813. Federal income and excess profits taxes
    814. State franchise taxes
    815. Idle plant
    816. Miscellaneous other expenses

Accounting Methods

Accounting methods concerning many of the items appearing on the foregoing chart of accounts are similar to those used in ordinary manufacturing enterprises and, therefore, will not be considered in this discussion. Only those methods that are different from the usual procedures found in manufacturing concerns will be discussed at this point.

Contracts and Accounts Receivable

Contracts receivable from the government or from other contractors are usually set up in separate subsidiary accounts for each contract. Whenever the contract requires a percentage retention, or an amount which is withheld by the government from each billing until faithful performance of the contract has been completed, a separate account should be set up for such amount retained. The use of subsidiary ledgers for contract billings is essential for accurate accounting for contracts. Frequently contract "change orders" will be issued, causing changes in the original contract amount. Also, contracts are subject to termination at the government's convenience. These factors make the use of detail contracts receivable ledgers a necessity.

Contract billings may be made at various stages; however, in the aircraft industry income is usually accruable only when the goods are shipped. Shipping is subject in most cases to inspection of the goods by the government or the prime contractor. For the purpose of facilitating shipment, it is necessary to build up a system

of paper work which will indicate when income has been accrued. An "order completed" ticket may be used to inform the inspection department when to request the prime contractor's or the government's inspectors to review the work done. Upon satisfactory inspection, an "inspection passed" ticket describing quantities shipped may then be attached to the shipping documents and forwarded to the billing clerk for entry into contracts receivable. Any goods subsequently returned should then be charged back by use of an appropriate returned sale slip.

Usually little consideration need be given to bad-debt losses, since the bulk of business is done under government contract. However, frequently losses are incurred through overshipment of parts and assemblies. Such overshipments represent complete losses unless the customer can be persuaded to pay for them.

When advances on contracts are made, a prorata percentage of such advances should be deducted from the receivable billed. Failure to deduct a portion of the advance will result in overstatement of receivables.

Inventories

In general, detailed material and job cards should be maintained for each type of material purchased or each job in process. When materials and parts are furnished by the customer, they must be segregated from company-owned goods and not shown as an asset in the financial statements. A quantity record is usually maintained for such goods for control purposes. When cost-plus-fixed-fee contracts are in force, materials purchased under them must be segregated, since all CPFF inventories are owned outright by the government.

Work-in-process and finished goods inventories present many difficult accounting problems in the larger aircraft plants. Because of complexities in design and numerous design changes, and the nature of the costs involved, it is very difficult to charge actual cost directly against each product produced. Also, much work is done with only rough estimates of the number of units to be produced. This makes the application of indirect costs to jobs in progress correspondingly difficult. Where possible, standard costs are developed to be charged to work in process. In such cases and where estimated costs are used, the chart of accounts must be revised to

reflect the necessary variance accounts which will result from applying standard or estimated cost rather than actual.

When regular commercial business is carried on along with government business, distinction is made between the two, for government contracts disallow several types of cost which can be prorated or charged to commercial contracts. In preparing overhead or burden application rates, this distinction is of importance, since disallowed costs cannot be prorated to government contracts. It is suggested that a disallowed costs account be set up to absorb unallowable direct costs, and a different basis be used for prorating indirect costs to government contracts.

Physical inventories are important because of the large quantities of materials on hand and, accordingly, should be taken continuously where practical. Large plants also make extensive use of internal auditors to review inventory functions.

Provision for Revision of Contract Prices

Original contract prices may be revised upward or downward by negotiation when the actual production costs become known. Changes in income may also be made upon subsequent renegotiation of contracts by the government. Sometimes billings are made on the basis of cost plus a percentage of cost as profit. Where it is evident that profit has been overbilled, accurate accounting requires the setting up of a liability for any downward adjustment anticipated. The account "provision for revision of contract prices," sometimes captioned "reserve for renegotiation refunds," is set up for this purpose.

Plant, Property, and Equipment

The necessity of showing a final accurate cost affects the plant, property, and equipment accounting policies, since depreciation or amortization of these assets is an important element of cost. To facilitate the computation of accurate depreciation and amortization figures, subsidiary plant ledgers are essential. Assets fully amortized should be separated from other assets to prevent their being amortized more than once. Assets currently being amortized under War Department necessity certificates are also set up separately, since a special rate applies to them. Such individual plant and equipment records also facilitate preparation of income tax

returns, especially where assets are sold and the question of basis must be decided.

Whenever possible depreciation and amortization are charged direct to jobs in process on a production-unit basis. This is rendered feasible when equipment is purchased or constructed for a specialized operation, such as a heat treating oven fitted to a certain part or assembly. When this procedure is not possible, the total write-off should be apportioned on a reasonable basis.

Deferred Development Costs

Deferred development costs arise out of cost incurred for the development of a new product or process. All such costs should be segregated from other operating costs and set up as an asset. When the new product is established, deferred costs are written off against future production; if, on the other hand, the product never reaches production, the costs incurred should be charged off against income. For this reason, adequate subsidiary records are maintained for each new project as some costs are recoverable while others are not. Costs which will be accumulated here include: (1) engineering, (2) designing, (3) patterns, (4) molds, dies, etc., (5) special tools, and (6) cost of testing and correcting the initial product.

Gross Contracts Billed

Sales of aircraft parts are recorded similar to ordinary merchandise sales. Sales of airplanes should be recorded by the serial numbers of the airplanes sold. When shipments are subject to resident inspection, only inspected and passed parts should be billed as income; rejected parts should be charged off immediately to the appropriate loss account. When inspection is carried on at places other than the company's plant, rejected parts are also charged off as losses. Only returns from ordinary sales should be recorded in the sales returns account.

Cost of Contracts Billed

In parts and assembly manufacturing plants or in service-rendering plants (such as machine shops and heat-treating plants), cost of contracts billed may be recorded on the basis of actual cost, standard cost, or estimated cost. In aircraft plants, the cost of goods sold is determined by estimating cost as a percentage of sales

price. This percentage is determined by (1) the total cost of designing and developing all airplanes of a particular model, and (2) the number of airplanes of this model which will be produced and sold. Failure to maintain production costs within the budget costs or inability to make a sufficient volume of sales as estimated will necessitate revision of this percentage.

Accounting for Scrap

Many of the smaller aircraft parts producers follow the procedure of ignoring cost of defective work and taking selling price of scrap as income. This practice should be discouraged because of the inaccuracies it produces in the cost accounts. Defective or spoiled work should be charged to an appropriate loss account which, for statistical purposes, may be divided into the various departments responsible. Scrap inventory should be kept under a quantity accounting control until sold. Sales price of scrap may be credited against the loss account to produce the net loss.

Financial Statements

The following suggestive financial statements are adaptable to the medium-sized and small manufacturers of aircraft parts and assemblies.

BALANCE SHEET

Assets

Current Assets
- Cash in bank and on hand
- Marketable securities (state basis and market value)
- Contracts receivable—U. S. Government
- Accounts and notes receivable—trade (less estimated uncollectible accounts $________)
- Inventories (schedule 1)
- Advance payments to vendors
- Prepaid expenses

Total current assets

Plant, Property, and Equipment: (schedule 2) (state basis)

	Cost	Accumulated Depreciation and Amortization	Net
Land			
Buildings and structures			
Machinery and equipment			

Tools and instruments
Automobiles and trucks
Furniture and fixtures
Construction in progress
Total plant, property, and equipment

Intangible and Other Assets
Deferred development costs (schedule 3)
Good will and patents

LIABILITIES

Current Liabilities
Notes and accounts payable
Accrued liabilities
Government loans (schedule 4)
Completion costs of contracts billed (schedule 5)
Advance payments received on contracts (schedule 6)
Federal income and excess profits taxes
Provision for revision of contract prices (schedule 7)
Total current liabilities

CAPITAL

Capital Stock
Paid in Surplus
Earned Surplus

Supporting schedules may be attached to the above financial statements for additional information as follows:

1. *Inventories.* A detail of the various classes of inventories and a detail of the various jobs in progress and completed. A statement of the method of valuation.

2. *Plant, Property, and Equipment.* A detail of the various types of assets, whether under certificates of necessity, fully amortized, or subject to accelerated or normal depreciation. A statement of the basis used, either cost or appraisal.

3. *Deferred Development Costs.* A detail of the costs accumulated for each project, and the proposed disposition of such costs if known at the time the statements are prepared. A statement of the method of write-off of costs, the dispositon of which is known.

4. *Government Loans.* A statement of the amounts received and amounts liquidated on each contract.

5. *Completion Costs Not Billed.* A detail of the nature of such costs and a statement of the basis of determination.

6. *Advance Payments Received on Contracts.* A detail of the amounts originally advanced and liquidated on each contract.

7. *Provision for Revision of Contract Prices.* A statement show-

ing detail of the amounts and contracts involved and the basis of the estimates made.

The form of income statement used will not vary materially from the types found in ordinary manufacturing businesses and will not be considered here. However, whenever cost of goods sold is calculated on an estimated or standard basis, a statement should be attached showing the basis of estimation, variances from standard cost, and any changes in estimates made after the close of the accounting period but before the statements are prepared.

ACCOUNTING FOR AMUSEMENT ENTERPRISES

By

L. R. Van Duyne *

Brief Description of Business

Amusements, other than theatres, have been growing in number and variety for some time but the growth has accelerated in recent years until today amusements, as a big business group, has more customers than most others. The term includes various game fields or courts (basketball, baseball, football, hockey) as well as amusement parks, beach resorts, race tracks and athletic meets.

Generally speaking the sources of income are: gate receipts or admissions; sale of programs; concessions (restaurant, hot dogs, candy, drinks, etc.), and miscellaneous.

In addition to the ordinary running expenses there are certain expenditures required by special conditions present in this type of enterprise and because of their importance it might be well to review them at this point.

Taxes and Licenses

Some types of amusements are subject to special state or local taxes on a fixed fee or other basis. Frequently coupled with the granting of the license are specific restrictions or inhibitions. Perhaps a record of daily admissions, or income, or other data is demanded. Special police protection must be provided even if not specifically required by the terms of the license. Certain safeguards for the public may be imposed. In the case of pari-mutuel race tracks, sworn statements of the business done must be submitted daily to the State Racing Commission and the state's share of the mutuel commission remitted regularly. Each of these must be considered in developing the accounting system and many have a bear-

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ing on the plan prepared at the start for laying out the physical property.

Local boards of health prescribe sanitary rules without any regard for license restrictions. Frequently the washrooms are leased to a concessionaire, who may or may not pay for the privilege. The contract arrangement specifies who buys the towels, cups, paper, disinfectant, mops, pails, and other cleaning requisites, but the concessionaire must keep the places clean and meet the local sanitary requirements. The accountant is concerned only if the management is paid by the concessionaire, or if the supplies must be provided for him.

The Federal Admission Tax calls for special attention. There are numerous phases which must be considered. It is required that substantial daily records be maintained, to be retained for four years, subject to examination at any time by the Internal Revenue Department. It is further required that the tax be paid, based on the established price, even though admission be by free pass. On the other hand, if more than the established price be charged, the tax is based on the amount received. Serious consideration should be given to policies as well as equipment in this connection. To illustrate, in a given instance, the admission, plus tax, was established at $1.00, of which 10 cents was paid as tax. Many free passes were issued to bring in more patrons, who nevertheless had to buy so-called tax tickets at 40 cents to gain admission. The government still collected the established 10 cents on all admissions and the net admission from most of the patrons was 30 cents. Turnstiles were subsequently installed, requiring half dollars to operate them. The established price was dropped from $1.00 to 50 cents and the tax dropped to 5 cents or 10 per cent of the new price, so the the management netted 45 cents, or 50 per cent more than under the former plan. In addition, printing of tickets, passes, and tax tickets was abolished, as were also many ticket sellers and ticket takers, substituting a fewer number of changemen to provide half-dollars and a few turnstile watchers. The accounting procedure as to admissions was greatly simplified.

If the admission be by printed ticket always sold at the established price, the records must be planned to provide an ample check of the quantities delivered by the printer, the number sold (and the money accounted for as to each seller), the number not sold

(which must be properly safeguarded and identified, for examination by a government deputy if demanded) and a complete check of the ticket stubs surrendered at the gates against the number sold. These stubs must also be safeguarded for government examination and count.

Should more be surrendered than sold, there may be counterfeits, or else collusion between employees. If there be more sold than surrendered, the ticket takers may not be on the job, or patrons may buy several tickets at a time to avoid standing in line on subsequent days, and then lose them or at least not use them.

Care must be used in planning the location and type of gates to permit adequate accounting control. Pass gates should be provided for use of employees and commercial service men, such as telephone and other repair men, and truckmen who deliver supplies.

Insurance

Amusements are generally seasonal. Numerous buildings may be spread over a wide area, and are frequently of less substantial construction than office or factory buildings. They are often outside city limits where fire and building regulations may be less restrictive. They are exposed to the elements during long periods of idleness, with perhaps only a caretaker to look after them.

People attending amusements are pleasure-bent and are generally careless. The desire to out-do a companion leads some to recklessness and large crowds are in themselves dangerous. Thus, accidents are frequent, although safeguards determine how serious they may be. The cost of public liability insurance, based on an experience rating, is high. The premium is figured either on the number of paid admissions or the amount of the payroll. The insurance coverage should be ample, and care taken to see that every type of situation that can be anticipated is covered by the provisions of the contract. Where concessions are leased to others, proper insurance protection to the management should be required.

Every possible precaution should be taken against fire hazards. Ample exits should be provided and all waste paper and refuse regularly disposed of. Sufficient police guard should be had to avoid the danger of stampede in case of fire. Even with an equipped private fire brigade, insurance rates will be relatively high. Temporary electric wiring between buildings, perhaps through trees, presents a potential danger.

If the receipts are considerable, insurance against holdups and robbery should be purchased. Custodians of cash should be bonded and safeguarded against personal injury and have appropriate equipment for protecting the property in their hands. Perhaps armored car service may be available for transporting deposits and payrolls. It is frequently necessary to secure new denominations from the bank to provide proper change for the cashiers.

Purchasing

In a plant which lies idle for some time and is being prepared for a period of great activity with large numbers of patrons, the problem of purchasing supplies for the many requirements is considerable. They might be accumulated in several places or be received by different employees. After the opening day they would be dispersed in many directions. Adequate records of receipts of supplies should be installed and items watched to prevent wastage or theft. Petty thieving thrives among employees and patrons in some types of amusements.

Budget

The income of an amusement enterprise will reflect the changing whims of the public, which the wisdom of the promotional expenditures can guide in some measure. The wise management will make a careful survey of the cost of required repairs and all necessary expenses of operations, creating a budget in considerable detail. This plan would serve as a standard of performance on the expense side of the profit statement. Since this is a cash business, the record of incomes can be compared with the budgeted expenses daily. For future comparative and statistical purposes, a record should be kept of daily attendance, daily income (separating the sources), the weather, day of week, whether a holiday or other special occasion affecting the attendance, and any other pertinent information. A complete continuous statistical record by days and weeks or longer periods and annual totals will prove a valuable adjunct to the general books in the preparation of the budget.

While the foregoing comments are applicable to practically all types of amusement enterprises, racing (horses or dogs) is in a class by itself through the addition of still another phase. An increasing number of states have licensed pari-mutuel betting, thus enabling race tracks to secure a substantial income which is shared

with the state. Prior to this plan, most tracks were supported by wealthy sportsmen who paid heavily to keep the sport alive. They maintained extensive stables and bred their stock. Since the tracks are now self-supporting, the number of horse owners has greatly increased, and more recently dog fanciers have acquired a similar opportunity for livelihood.

The main source of income for race tracks is the commission and breakage on the amounts bet by patrons through the purchase of tickets at the windows of the pari-mutuel department. The enormous number of transactions require very extensive records to effect the absolute control maintained. The totalisator method of recording bets is used at most tracks. This is a very intricate mass of machine equipment comprising the ticket-selling machines and the accumulating adding machines in the control room. As a ticket is purchased, a key depressed on the selling machine completes an electric circuit which starts the printing mechanism which prints and ejects the ticket. Simultaneously the amount of money (depending on denomination of ticket) is accumulated on the master adding machine under the respective horse bet on. Many selling machines may be operating simultaneously at any of the five or more denominations on any of the twelve horses and the control mechanism accumulates the figures and displays the totals in electric lamps on the "tote" board where all may see.

The procedures in this department are:

1. Selling mutuel tickets and accounting for the receipts of cash from customers.
2. Deducting from the total sales the amount to be retained by the track and that to be paid to the state.
3. Setting up a liability for the amount to be returned to the public, detailed as to date, race, pool, denomination of ticket, and the number of such tickets with the pay-off value of each.
4. Reducing that liability as the winning tickets are presented for payment.
5. At each step maintaining complete and continuous control of each function, department, and even each individual in each department.

The system by which these items are all accomplished is surprisingly complete and any difference may be readily traced at once to its source.

If we eliminate the pari-mutuel department, which is really a business within a business, the race track, from an accounting standpoint, is comparable to other amusements.

Theory of Accounts

While the plan of accounts used by various amusements differs widely, there are several general principles applicable to most of them. This is a cash business and there are no receivables of the usual nature. The sales are all on the premises and consequently there is no sales department or shipping room, and no bills are mailed. Credit and collection departments are likewise unnecessary. Since no manufacturing or changing of raw materials into a finished product occurs, inventories, with attendant purchase and stock records, are not present.

Selling consists chiefly of advertising and kindred promotional activities. Unless the amusement attracts patrons in competition with other forms of recreation, it cannot long exist. Promotion, then, is essential, and this may take almost any form. Perhaps added or changed attractions may accomplish the desired result. Newspaper and billboard advertisements and the radio are used. Stories and general news items in the papers are sought because of their value. Every effort is made to improve the appeal of the attractions, whether by securing better players, or performers, or by bettering the equipment. Adding to the comfort and convenience of the public has its value. Nothing succeeds like success and when the crowds are large, efforts are continued to increase them. Advertising is, therefore, frequently one of the large expenses.

The elimination of the numerous departments referred to above enhances the relative importance of others. The maintenance department is particularly important because it is charged with the job of keeping the plant and equipment running. The purchases for this work are usually not in large quantities, but they cover a wide range of items. The plumbing is a continuous source of trouble and the electrical work is frequently being altered. In case of a breakdown, every effort is made to effect repairs promptly in order to continue operations without interruption. The records should be so devised that the ordering of parts and supplies is regulated according to needs and proper accounting for receipt and use of materials. The tendency is toward wastage and theft of even very inexpensive items. The public has little regard for the property. Even towel cabinets must be securely fastened to walls. These

conditions contribute to the breadth of attempted control through the requisitions and purchase records.

The peculiarities of the amusement business are reflected in the books of account and the statements obtained therefrom. The accounts are simple and relatively few in number, whereas the quantity of daily records, many of a purely statistical nature, is often considerable.

Much depends upon the plan of operation. The amusement company may simply own the real estate and lease the facilities to an attraction for a season, or it may lease the plant, or parts of it, to a succession of attractions for shorter periods. In this event, the sole income would be from rent, and the expenses would be limited to corporate, real estate, payroll taxes, and general administrative expenses.

The company may operate the main attraction itself, but lease individual booths for refreshments, or side shows, or supplemental attractions to others. One concessionaire may operate restaurants and food and drink stands.

Concessionaires may pay fixed fees, by the day or season, or pay a percentage of sales. If the latter plan is used, provisions must be made for proper verification of the amount of the rent to be received.

If programs are sold, the management assumes responsibility for their preparation to insure accuracy. Two general plans are used to dispose of them. Program sellers, under the program department head, may sell them on commission or a concessionaire may handle them. The program department must account for all programs delivered by the printer. A record of the number given to each seller, reduced by the number unsold and returned, gives the quantity to be paid for in cash at the established rate, less the commission to the seller. These individual records are summarized on a daily report which is given to the accounting department as the basis for recording the income from programs. The cash deposited for the day must be in agreement.

Where admission is charged, a similar procedure is followed. The serial numbers and quantity of tickets of each kind are signed for by each ticket seller. Those not sold and returned are counted and signed for by the head of the admission department, and the

rest, being sold, must be paid for in cash at the full established price, including the admission tax.

Of the total received from this source, only the net admissions are credited to Income. The tax collected should be credited to the Collector of Internal Revenue. As the management has acted as the agent of the government in collecting this tax, the money becomes in reality trusteed and not available for current use. The tax is due by the end of the succeeding month and payment must accompany the return to the government.

Supplies of all kinds are purchased for use during the current season only. Normally there would not be sufficient held over to warrant an inventory for income purposes, although a check may be made solely for the purpose of accounting for them at the beginning of the following season.

The tools and equipment should be carefully accounted for. There may be garden tools in large variety, perhaps power lawn mowers, and in large parks, tractors with plows, harrows, seeders, and other farm tools for keeping large areas in grass and parking lots free from dust, mud, and uneven spots. This type of equipment may require a considerable investment, and a complete record is desirable. If a proper toolhouse is maintained, each worker would be charged with tools withdrawn and credited when returned. Even lawn mowers disappear unless responsibility is fixed. Small tools disappear even more rapidly if complete control is not maintained.

Since amusements are seasonal, all expenses for the year are chargeable to shorter income-producing periods. For this reason, items like insurance are charged on the cash basis, and not set up as prepaid beyond the end of the current year.

While depreciation may be taken for tax purposes, where buildings of less substantial construction are exposed to the elements during long periods of idleness, heavy repair costs recur at short intervals, and when such repairs have been made, the buildings acquire a new lease of life. Furthermore, the initial cost may not be very considerable.

Buildings erected solely to house some special activity may be abandoned when no longer so used, or completely rebuilt to serve some other purpose.

Where possible, all expenses are allocated to the various activi-

ties of the enterprise. Each attraction should carry its own expense of light, water, supplies, repairs, upkeep, and payroll costs. The general overhead expenses are usually not so distributed.

Payrolls are classified in departments. These might be classified as follows:

Admission ticket sellers
Admission ticket takers
Parkers of cars
Police (an important department)
Firemen (possibly)
Employees of each attraction or subactivity separately
Medical (where first aid room is maintained)
Ushers
Maintenance (plumbers, carpenters, electricians, gardeners, laborers, caretaker, etc.)
Administrative (accounting, programs, admission tickets, etc.)

Accounts Required

The income accounts are generally: (1) admissions (gross, less taxes), (2) concessions (distributed as to each concession), (3) programs (net received, reduced by printing costs), and (4) miscellaneous (sale of wastepaper, etc.). Each of these accounts has been mentioned previously and need not be further discussed here.

The expense accounts, which may be spread to conform to the distribution of the income accounts, include the following:

1. *Advertising and publicity*—While part of this may be chargeable to a particular attraction, most of it is of a general promotional nature.
2. *Banking Expense*—Armored car service or other expense in connection with providing change is charged to this account.
3. *Claims*—Here are posted the settlements with patrons for torn or spotted clothing or other small items not paid by insurance companies. Frequently it is cheaper to pay them than to have the insurance experience cause an increased rate.
4. *Decorations*—These might range from flags to flower boxes, and might include the planting of gardens, or indoor displays.
5. *Electricity and Water*—Night operation causes heavy consumption of electricity and the washrooms and kitchens use large amounts of water.
6. *Insurance*—Fire, windstorm, workmen's compensation, public liability, hold up, fidelity bonds, and perhaps other types of coverage are included.
7. *Maintenance*—To this account would be posted all of the expenses of repairs and upkeep of buildings and equipment. This account may be one of the large costs of operation, particularly if the buildings are not of substantial construction or the grounds extensive.
8. *Payrolls*—This is usually another of the larger accounts. It should be distributed over the various attractions, or otherwise departmentalized.

9. *Office Expenses*—The cost of stationery, postage, and supplies would be charged to this account. Since no billing and little correspondence is the rule, it is frequently unnecessary to carry separate accounts for each class of office expense.

10. *Programs*—The cost of printing the programs is separated from other printing expense, since it is applied directly against the program income on the statements.

11. *Taxes*—Taxes, such as payroll taxes, capital stock tax, municipal or other licenses, realty tax, as well as other taxes, are included. Only the Federal income, and defense and excess profits taxes are omitted.

12. *Telephone and Telegraph*—Unless the nature of the amusement entails heavy telephone costs, these would be included in the office expense.

13. *Rentals*—This account covers the rent paid for use of equipment which is not owned. Because of short periods of operation it may be economical to rent office machines as well as other equipment rather than purchase them.

14. *Over and Short*—Differences in the daily accounts of cashiers may be here recorded.

15. *Professional Services*—Legal and accounting services are posted to this account.

16. *General Expense*—All items of expense not otherwise allocated are included under this heading. Unless so considerable as to warrant a special account, the cleaning and sanitary supplies and uniforms are also included.

Operating Statements

Statement of Income and Expenses

	Total	Administrative	Attraction A	Attraction B
Admissions (Net)				
Sale of Programs				
Less Cost to Print				
Attractions (or Divisions)				
Concessions				
A				
B				
C				
Etc.				
Miscellaneous				
Total Gross Income				
Expenses				
Advertising & Publicity				
Banking Expense				
Claims				
Decorations				
Electricity & Water				
Insurance				
Maintenance				
Payrolls				
Office Expense				
Taxes				
Telephone & Telegraph				

Rentals
Over and Short
Professional Services
General Expense
Total Expenses
Net Income from Operations

BALANCE SHEET

ASSETS
Current
Cash in Banks
Funds (Petty Cash, change, etc)
Due from Concessionaires
Miscellaneous Receivables
Fixed
Buildings and Plant
Furniture and Equipment
LIABILITIES AND CAPITAL
Current
Accounts Payable (including accrued payroll tax)
Collector of Internal Revenue (for Admission Taxes)
Notes Payable
Other accruals
Tax provisions
Long-Term Debt
Capital Stock
Surplus

Statistical

The income and expense statement is frequently revamped to show the *daily average* of each account, produced by dividing the items under each heading by the actual number of days operated during the season. This statement can be compared to prior seasons and be used in preparing a succeeding budget.

BOOKKEEPING METHODS

The General Ledger controls all records and contains the asset, liability, income, and expense accounts. It should be so arranged as to facilitate the preparation of all statements except those of a purely statistical nature. No subsidiary ledgers are necessary unless the plant and property are so extensive as to warrant detailing in an appropriate book.

Records of Operations are generally accumulated on appropriate forms and a summary sheet prepared from which the entries are made. The sales of admission tickets by each seller are recorded

on reports accompanying the unsold tickets and cash. When proved, they are summarized and the totals entered in the columnar journal. Reports by concessionaires, and the program department are recorded similarly. Thus the underlying records may be numerous, but the entries on the books of account are few. The aggregate gross cash represented by all of the reports should coincide with the daily bank deposit and through the use of columnar records may appear on a single line for the day.

Purchase Invoices are entered and distributed in a columnar journal and checks drawn in the usual way.

An Accounts Payable Ledger may be kept with an account with each creditor.

Payroll Records are maintained in full detail to facilitate the preparation of reports and tax returns. Use of individual employee application cards giving social security number and full personal information is desirable. The reverse side might be used to accumulate the weekly earnings, listing hours, and amount of social security deductions.

ACCOUNTING FOR AUTOMOBILE DEALERS

By

Alfred W. Oldehoff*

Brief Description of Business

Dealers in automobiles may be grouped as new car dealers and used car dealers. The former is in the majority and constitutes the principal subject of this discussion. The new car dealer has definite relationships with manufacturers and finance companies, and problems concerning the disposition of used cars taken in trade for new cars sold, which must be controlled by an adequate accounting system. His operations, in addition to regular sales of new cars, include the servicing of cars sold and the sale of replacement parts.

The dealer has the exclusive right to sell the products of one manufacturer in the territory assigned to him in accordance with a contract (franchise) with that manufacturer. In consideration of rights granted the dealer, he must assume responsibilities and obligations commensurate with the policies of the manufacturer. Most automobile manufacturers require their dealers to maintain their accounting records in accordance with a uniform system of accounting developed by them and to submit periodical financial statements.

The automobile dealer's operations begin with the purchase of a new car from the manufacturer. All cars are sold to dealers on a C.O.D. basis, and in many cases, the dealer operates with a capital insufficient to enable him to do business on this basis without the aid of additional financing. One of the functions of the automobile finance company is to make it possible for the dealer to take delivery of his cars from the manufacturer and pay for them when they are sold. This is referred to as wholesale financing.

When the dealer sells the new car he receives cash, a used car traded-in, and notes signed by the purchaser to a finance company

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(deal in transit), or any combination of these. The financing of individual sales of autos is referred to as retail financing and is of two types, namely, recourse and no recourse. The distinction depends upon whether or not the dealer endorses the note (recourse) of the purchaser taken over by the finance company. In the case of recourse notes, the finance company requires the dealer to pay the balance due from the customer in the event that person defaults thereon. Upon such default, the finance company repossesses the automobile (collateral) and turns it back to the dealer. The cost of this car to the dealer is the amount of unpaid customer's balance paid by the dealer to the finance company.

Other dealer activities are the reconditioning and sale of used cars traded-in, the sale of repair parts and accessories, and the servicing of new and used cars sold.

Theory of Accounts

Accounting for the automobile dealer is based upon the theory that he is primarily in the new car selling business. The used car traded-in usually represents the gross profit on the new car sold and the dealer must liquidate the used car before he can realize the full selling price of the new car. Also, in order to maintain continuity in car sales, the dealer operates a service department and sells replacement parts. Around this theory and department organization are built the accounting systems of automobile dealers. Therefore, the automobile dealer looks to his records to provide him with sales, cost of sales, gross profits, and expense figures applicable to each of the following departments of his business: new cars, used cars, services, and parts and accessories. In addition, the dealer expects his records to provide him with certain vital statistical information, such as the number of new and used cars sold by types of automobiles; the number of repair orders issued, and the average labor and parts sold per repair order; the average reconditioning costs per used car; and the average trading profit on each new car sold.

The accounting system revolves about the inventories and the inventory records and upon these depend the accuracy of costing sales and the provision of considerable statistical data.

Accounts Required

The accounts of automobile dealers may be generally classified as follows: (1) assets, (2) liabilities, (3) sales and costs, (4) expenses or overhead, and (5) other income.

The unique *assets* of this type of business are:

1. Inventories, maintained by types of products to facilitate the determination and distribution of the cost of sales to the relative departments. (See discussion of balance sheet for valuation.)
2. Finance Company Contracts in Transit, representing the amounts due from the finance company on account of retail contracts and notes, signed by the car purchaser, for which the finance company has not settled with the dealer.
3. Finance Company Repossession Reserve, representing accumulated amounts due the dealer from the finance company. This reserve is a consideration for his endorsement of the retail note and is retained by the finance company until the note is paid up, when it is refunded to the dealer. The dealer records the reserve on his books by journal entry, charging the finance company and crediting income. Few dealers set up this amount as a reserve against possible loss from nonpayment of notes. Losses are usually small because of the repossession of the collateral.

The *liabilities* peculiar to the automobile dealer are:

1. Due Finance Company on Repossessed Cars representing the unpaid balance due the finance company by the defaulted car purchaser which the dealer is called upon to pay under his endorsement of the notes. This amount also represents the cost to him of the used or repossessed car turned over to him by the finance company.
2. Notes Payable to Finance Company on New and/or Used Cars, consisting of amounts due the finance company on account of new cars financed (wholesale financing) and used cars chattled.

Sales and their related *costs* are classified by types of products sold or departments and may be further analyzed by subgroups. For example, the new car department may keep separate account groups for passenger cars and trucks. Gross sales may be offset by cash, accounts receivable, value of trade-in, overallowance, and amount due from finance company on retail contracts in transit. The cost of sales accounts are the repositories of costs transferred from the inventories. In the case of new and used cars sold this cost is the actual or book cost of the unit, but in the case of parts, accessories, and labor, this cost is an estimate based upon a rate or percentage determined by experience.

The individual *expense* or *overhead* accounts are self-explanatory. Automobile manufacturers sponsoring uniform systems vary

in their general classification of these accounts. These variations are illustrated in the following classifications:

Manufacturer A classifies them as:

1. Direct (all accounts dealing directly with sales such as commissions, advertising, guarantee materials, and guarantee parts).
2. Indirect (all accounts other than direct).

Manufacturer B classifies them as:

1. Payroll (all salaries and commissions not chargeable to the cost of repair labor sold).
2. Supplies (heat, light, water, power, office and shop supplies, and materials for demonstration and company cars).
3. Maintenance (repairs and upkeep of equipment, demonstrators, and company cars).
4. Fixed Charges (rent, taxes, insurance, and depreciation).
5. Advertising.
6. Unclassified (all accounts not previously classified).

Manufacturer C classifies them as:

1. Variable (corresponds with Direct—Manufacturer A).
2. Semifixed (salaries—supervision and clerical, used car maintenance, supplies, travel and entertainment, professional, telephone, postage, etc.).
3. Fixed (rent, maintenance, taxes, insurance, interest, heat, light, power, water, and depreciation).

These expenses are distributed to each department at the time posting is made to a multicolumn expense account maintained for each classification in the expense section of the general ledger. Those items which cannot be distributed to specific departments are accumulated in a separate column and distributed on a predetermined basis at the end of the month. In the case of Manufacturer A the distribution is based upon the percentage that sales in one department bears to total sales. In the case of Manufacturers B and C the distribution is based upon the percentage that the direct expenses in one department bears to the total direct expenses. The distribution is made on the basis of the monthly operating statement.

Formulating account designations for automobile dealers contemplates the creation of a flexible number system within a departmental organization, for example:

Numbers	*Designation*
1- 99	Expense or overhead accounts
100-199	Assets
200-299	Liabilities
300-399	Sales and other income
400-499	Cost of sales

If expense or overhead accounts are concerned, the department to be charged may be designated by a letter affixed to the account number, as follows:

Letter Affixed	*Will Designate*
A	New car department
B	Used car department
C	Service department
D	Parts department
E	To be distributed

All standardized systems use similar account designations.

Operating Statements

The new car dealer usually follows the form of financial statement recommended by the manufacturer of his product. These statements seek to determine the operating results of each department. A form of statement illustrating this feature follows:

Statement of Income and Expense

	New Car Dept.	Used Car Dept.	Service Dept.	Parts Dept.	To Be Distributed
Sales (Net of Returns)	x	x	x	x	
Cost of Sales	x	x	x	x	
Gross Profit	x	x	x	x	
Expense Accounts:					
Direct Sales Expenses:					
Advertising					
Gasoline, oil and grease					
Labor—car delieveries					
Materials—free service					
Labor—free service					
Guarantee material					
Guarantee labor					
Salaries and commissions of salesmen					
Total					
Indirect Expenses:					
Bad accounts and allowances					
Charities, dues and subscriptions					
Freight, express and cartage					

	New Car Dept.	Used Car Dept.	Service Dept.	Parts Dept.	To Be Distributed
Heat, light, power and water					
Interest					
Legal and professional (including collection)					
Office supplies and expenses					
Repairs of equipment					
Repairs of company cars					
Salaries—executive					
Salaries—clerical					
Salaries—all other					
Telephone and telegraph					
Tools and supplies					
Traveling and entertainment					
Miscellaneous expense					
Total					
Fixed Charges:					
Rent and expenses in lieu of rent					
Taxes (other than building and income)					
Insurance (other than building)					
Depreciation — machinery and equipment					
Depreciation — company cars					
Total					
Total Expense Accounts					
Total Expense Accounts					
Departmental Distribution					x x x x
Departmental Expense					x x x x
Total					x x x x
Net Earning from Sales					
Other Income:					
Cash discounts earned					x x x x
Finance reserve income					x x x x
Miscellaneous earnings					x x x x
Total					x x x x
Net Earnings Before Taxes Based upon Income					x x x x

Balance Sheet

Balance sheet accounts similar to those listed below are found on the books of the well organized automobile dealer.

Assets

Current:
- Cash on hand
- Cash in banks
- Finance company contracts in transit
- Notes receivable
- Accounts receivable (usually divided as to retail, wholesale, officers, and employees)
  - Less: Reserves for bad debts
- Inventories:
  - New cars
  - Used cars
  - Repair parts
  - Accessories
  - Gasoline, oil, and grease
  - Repair orders in process

Fixed:
- Land
- Buildings and building fixtures
- Machinery and shop equipment
- Office furniture and fixtures
- Company cars

(Buildings through Company cars:) Less applicable reserves

Deferred:
- Finance company repossession reserve
- Prepaid expenses
- Deposits on contracts

Liabilities

Current:
- Accounts payable
- Due finance company on repossessed cars
- Accounts receivable credit balances
- Notes payable to finance company on new cars
- Notes payable to finance company on used cars
- Notes payable to trade
- Notes payable to bank
- Accruals (payroll, taxes, interest, insurance, etc.)

Deferred Debt:

Capital Stock or Investment:

Surplus:

The valuation principle of "cost or market, whichever is lower," applies to automobile dealers' inventories.

The business is primarily concerned with selling new cars and the inventory of new cars is consequently of the greatest importance. It is usually carried at *cost.* However, should a dealer have new

cars on hand when new models appear, and adjustment reflecting depreciated values due to obsolescence should be considered.

The allowance granted by a dealer on a used car traded in is usually in excess of the proceeds expected to be realized from its sale. This overallowance is equivalent to a rebate or discount on the new car and should be charged against new car sales. At the end of the accounting period, the used car inventory should be revalued and the depreciation in value charged to the cost of used cars sold or to some special inventory adjustment account.

Parts, accessories, gasoline, oil, and grease inventories must be frequently adjusted for variations in costing, loss from breakage, and obsolescence. Materials used on repair work in process are usually retained in the inventory until the work is completed and costed out.

The account for repair orders in process carries only the cost of labor applicable to such work until it is completed and transferred to the cost of service sales.

A perpetual inventory record is maintained for new and used cars.

Bookkeeping Methods

The accounting systems of automobile dealers include certain basic records the details of which follow:

The General Ledger contains a record of assets, liabilities, capital, and surplus, together with detailed sales, cost, income, and multicolumn expense accounts; and controlling all subsidiary ledgers and records. The balance sheet and operating statements are prepared from this record.

Cash Receipts containing a chronological record of all cash receipts including settlements of accounts receivable and deals in transit. In some standard systems a separate column is used to record the amount due from the finance company repossession reserve.

The Check Register is a record of all bank checks issued.

The Purchase Record is a register of invoices for automobiles, other merchandise, and expenses. Accounts payable is credited with those items contracted for on open account and notes payable is credited with automobiles purchased under a finance company wholesale plan.

Payroll Records conform with the usual requirements. Departmental distribution of the payroll is accomplished by the payroll book.

Sales Summary—Cars is a detailed record of each new or used car sold showing the down payment, the amount due from the finance company, the value of the trade-in, the disposal of the over-allowance, the gross amount of the sale, and the unit cost. The latter is journalized from the inventory to cost accounts through this record.

Sales Summary—Parts and Service is a detailed record of completed repair orders and parts sales. Costs are journalized from the inventory to cost accounts through this record. In the absence of unit costs, gross profit percentages are used in arriving at the cost of sales. Variations in cost are adjusted by frequent physical inventories.

The Interdepartmental Journal is a detailed record of internal charges or nonrevenue operations of the business. These arise when one department supplies material and/or labor to another department, for example:

1. Servicing and delivery of new cars by the service department
2. Reconditioning and delivery of used cars by the service department
3. Guarantee work on new and used cars by the service department
4. Supplies consumed by new and used car salesmen
5. Maintenance of company-owned equipment and rolling stock

Inaccuracies in this record result in distorted departmental figures. Interdepartmental repair orders should furnish the basis for entries into this record. The costing of these orders should be made at prime cost (material and labor). Overhead expenses are distributed to the departments at the time of statement preparation and should not be included in these transfers.

The New and Used Car Inventory Record contains a chronological record of all new cars purchased and, separately, all used cars traded-in. All data respecting the acquisition, reconditioning, description, and disposition of each car is recorded here. It is reestablished each month with the inventory at the close of the month preceding. Supplemental card records by models or age of the car are also maintained.

Automobile dealers maintain, in addition to these records, the usual general journal, accounts receivable and payable ledgers, notes receivable and payable books, and deferred expense records. The customary processes of double-entry bookkeeping are used in recording the documentary transactions in the books of original entry and in posting the monthly footings, summaries, or detail to the general and subsidiary ledgers or records.

ACCOUNTING FOR BANKS

By
E. S. Woolley *

Brief Description of Business

Banks may be divided into two general classes, commercial and mutual. Commercial banks are owned and controlled by their stockholders while mutual banks, as the name implies, are owned and controlled by their depositors. Mutuals are for the most part savings banks and are largely located in Eastern states. In these states if the word "savings" appears in the title of a bank it is usually a mutual. In recent years some of the mutuals have been granted permission to have checking accounts. Financial institutions, for example, investment houses, and building and loan associations, are sometimes erroneously referred to as banks.

Commercial banks, with which this brief treatise chiefly deals, may be either national or state chartered. If national chartered they come under the supervision of the Comptroller of the Currency, and if state chartered, the banking department of the particular state is the direct supervising agency. All national bank and all state bank members of the Federal Reserve System are required to be members of the Federal Deposit Insurance Corporation, but many other banks have voluntarily become members.

The business of commercial banking may be roughly divided into two main functions, namely, the lending function and the service function. By means of the lending function, the bank obtains its funds for investment chiefly from its deposits. It pays for these funds either in the form of interest or in the form of services, or in both.

Since deposits are subject to demand withdrawal at the option of the depositors, banks must invest their funds so as to be able to

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meet all anticipated demands. Commercial banks usually carry from 20 to 35 per cent of their deposits in cash, that is, cash in vaults and due from other banks. These funds are known as the Cash Reserve. The requirements regarding the amount of cash that must be held by a bank, depends upon whether or not the bank is a member of the Federal Reserve System. However, no bank could conduct business if it merely held to these minimum requirements and no more.

The balance of the deposits is invested in interest-bearing securities, usually known as the Earning Assets, which are divided into two general classifications, outside investments and local loans. Outside investments are for the most part bonds, though at the present time many banks which have a limited outlet for their funds locally are purchasing F.H.A. insured mortgages from outside sources. National banks are prohibited from investing in stocks, and even debenture bonds are frowned upon. Loans and mortgages, likewise, are under certain restrictions, which vary somewhat in different states. It is therefore necessary to know the various state laws governing such matters.

The strictly service functions of commercial banking have been increasing rapidly during recent years. Some of these (in which the deposit funds are not considered,) are: no-minimum balance checking accounts, collections, selling of drafts, and money orders, commissions on sales of stocks and bonds, and safe deposit box rentals. Income is also derived from several kinds of penalty charges—those made for issuing checks against insufficient funds, allowing a note to run past due, and other similar ones.

The internal operating routine of a bank is based on a number of department subdivisions; and their functions and routine are often closely interrelated and interdependent. The operations of the transit and clearings, interior proof, and individual bookkeeping departments are probably the most closely related, therefore for the most efficient operation these departments should be located as close together as space will permit and should be under the supervision of one man, who usually has the title of chief clerk. A very large percentage of the daily routine work of the bank goes through these departments, which are briefly discussed, as are the other departments, under their respective captions.

Theory of Accounts

Tellers

As a rule today, tellers are both receiving and paying, for banks have found that it was a hindrance both to depositors and to the efficiency of internal operations to have separate payers and receivers. In large banks the tellers are only responsible for their cash as they do not prove the deposit tickets but only the cash that appears thereon. After proving the cash they make out a cash ticket for the amount and it, together with the checks and the deposit ticket, is sent to the proof department for proving. However, they usually look at both first and last check to see that the endorsements are correct.

The tellers make a list of the checks they cash, usually on an adding machine and carry that total to their daily blotter. Each cashed check must bear the rubber-stamp identification of the teller cashing it. Some banks dispense entirely with tellers' blotters and put everything through the proof department. When this is the custom the proof department informs each teller at the end of the day of the amount of cash he should have, and of any unreconcilable differences that are debited or credited to the Cash Over and Short account.

In small institutions that do not have a central proof department each teller proves all items on the tickets, including checks.

Central Proof Department

Many different names are used to designate the central proof department but whatever the name it is the department that proves and distributes the items coming into the bank each day. Items come to it from all tellers, through the mail, collection department, and other departments of the bank. As already stated, some banks put every transaction of all departments through the proof department; others exclude various departments, for example, the loans and discounts.

The work of the department consists of proving the checks and the deposit tickets, analyzing the deposits and cash letters, preparing items for local clearings and routing those items to departments of the bank—the transit and clearings, individual books, exchange and collection tellers, and general books.

Today practically all large banks and many small ones use ma-

chines which enable the accumulating of separate totals at the same time that the sorting is being done. Most banks that use such machines pick the work up in batches or blocks at different times of the day. As each batch is balanced separately, locating errors as and when they occur is facilitated.

Transit and Clearings

If a bank does not have a central proof department the transit and clearings department proves and lists the items for local clearings, that is, checks drawn on other banks in town. If these are handled in the proof department it merely routes and lists all transit items, which are those drawn on banks in towns other than the one in which the sending bank is located. The work of the department consists of preparing the cash letters, that is, listing the items drawn on out-of-town banks, and sending them to the correspondent banks in the respective territories. This department is also responsible for the routing of items so that "float days," that is, the number of days in which they are in transit between banks, may be held to an absolute minimum.

There are also "direct sendings," which are items that are sent directly to the bank on which they are drawn rather than collected through correspondents. Such direct sendings predominate in the states with a large number of nonpar banks. Nonpar banks are those which charge exchange on checks drawn on themselves but presented for payment through another bank. As one of the reasons for the organization of the Federal Reserve System was to establish the par clearance of checks, such nonpar items cannot be handled through that system. All members of the Federal Reserve System are prohibited from charging exchange on themselves; in addition, there are many banks that are not members of the system but are nevertheless on the par list. The nonpar banks are located principally in sixteen states—eleven Southern states and Minnesota, Nebraska, Kansas, and North and South Dakota.

Individual Books

The bookkeeping department is responsible for sorting the checks and deposits into account order, for paying or rejecting payment of a check, and for examining checks for irregularities.

It is also responsible for filing checks and deposit tickets, keeping the books in agreement with the control in the general ledger, and rendering statements.

In general, two systems of posting are in use, the dual system and the single system. Under the dual system, items are first posted to the ledgers by one bookkeeper and, subsequently, by another bookkeeper to the statements. The theory is that this method reduces chances of mispostings.

Under the single-posting system certain banks use a carbon copy while others photograph the statement that is sent to the depositor. Under either method checks and deposits are "sight posted" by one person, but actually posted the following morning by another. Sight-posting, or visually posting as it is also known, is checking the account in order to see that there is sufficient balance on deposit to pay the item, without actually entering the amount on the depositor's ledger sheet.

Under the single-posting system, which came into existence about 1932, only one run is made of the ledgers, whereas under the dual system two are usually made, one in the morning and one in the afternoon. In machine posting it takes about six times as long to locate the account, insert the sheet into the machine, and pick up the old balance as it does to post one item. It is obvious then that the more often accounts are handled the less efficient are the operations. Some banks, however, still use both statements and ledgers, and yet handle the accounts but once. They do this by combining the counter work (that is the work coming through the tellers' cages) of the previous day with the present day's clearings. Under this method it is of course necessary to sight post the afternoon work.

Loans and Discounts

Loans are made by the loaning officers but the routine work of handling the notes is in charge of the note teller. The note department is responsible for the custody and filing of notes, and seeing that they and the collateral conform with the agreement and bear official approval.

Records required include a note register, note notice, and maturity tickler. Most banks make entries to these at one operation, either on a typewriter or on the discount machine, which is a com-

bination typewriter and accounting machine. The liability ledger (in which the individual notes are recorded under the borrowers' names) may show direct loans, indirect loans, secured or unsecured, all on one sheet by using different columns on the sheet for these purposes; or different colored sheets may designate the various types.

The loan department is also responsible for the customers' collateral pledged as security for loans. Such collateral is usually under dual control so that two people are required to be present when collateral files are in use.

If the small-loan volume is not large such loans are often handled in this department; if the volume is substantial, however, they are usually handled in a separate department. The procedure is similar to that used for loans and discounts, except that no notice or register is used. In addition, the majority of small-loan departments use a card rather than ledger sheets, some prelisting the balances and crediting payments directly thereto, while others use a system whereby payments are credited to a so-called savings account which is pledged as security for the loan. Under the latter system the loan remains at the gross amount until fully paid, when the mythical savings account is debited and the loan credited.

Savings Department

The system most in use in savings departments keeps the account by number rather than by name. In such cases the customer's passbook and the savings ledger card carry the same number. Naturally an alphabetical card index is required. Like the commercial department, most savings tellers accept both deposits and withdrawals. There are still a few banks, however, which continue to follow the old method whereby withdrawals are entered in one part of the bank, and the customer takes an approved withdrawal slip to the teller for cashing.

Time certificates of deposit and the various forms of 50-week clubs, for example, Christmas Clubs, are usually handled in the same department. The system most in vogue for these clubs is, again, a numerical rather than an alphabetical filing system. Coupon books are used for depositors, while preprinted due dates and payments are placed on a ledger card for the bank. These require only a rubber-stamp endorsement by the tellers to record payments.

Usually each kind of 50-week club is controlled by a separate account in the general ledger.

Trust Department

Many banks have a trust department, which, while considered a part of the bank, nevertheless is very distinct in its operations from the bank itself. The income from the trust department is derived from fees, which fees are, to a large extent, governed by the courts. The records needed for trust accounts are many and frequently require that the same item be posted as many as five times. For this reason machine posting is clearly indicated for the work of the trust department. Many of the large trust companies use the punch-card system. Among the books required in trust departments are: principal ledger, income cash ledger, investment ledger, security ledger, and statement of account, which is often divided into statement of principal and income cash. A journal is also required. Under a machine-posting routine the principal journal, principal ledger, and statement of principal account are posted in one operation. The investment journal, investment ledger, and security ledger are also posted in one operation as are the income cash journal, income cash ledger, and statement of income cash. Where pen-and-ink posting is in use a substantial percentage of the number of items must be posted at least twice.

Accounts Required

A simple classification of the asset and liability accounts employs a combination letter and number series such as the one that follows:

Assets (usually known in a bank as Resources)

A. Cash Reserves
- A-1 Cash in Vaults
- A-2 Federal Reserve Bank, Collected
- A-3 Federal Reserve Bank, in Transit
- A-4 Principal Correspondent Bank, New York
- A-5 Principal Correspondent Bank, Chicago
- A-6 Other Banks
- A-7 Collections in Transit
- A-8 Cash Items

B. Earning Assets
- B-1 U. S. Government Bonds, Unpledged
- B-2 U. S. Government Bonds, Pledged
- B-3 Other Tax Free Bonds, Unpledged

B-4 Other Tax Free Bonds, Pledged
B-5 Other Stocks and Bonds
B-6 Commercial Paper, Bankers Acceptances, etc.
B-7 Demand Loans, Secured
B-8 Demand Loans, Plain
B-9 Time Loans, Secured
B-10 Time Loans, Plain
B-11 Monthly Repayment Loans
B-12 F.H.A. Mortgages Purchased
B-13 Other Real Estate Mortgages

C. Fixed and Sundry Assets
C-1 Interest Receivable Accrued
C-2 Prepaid Expenses
C-3 Customers Liability, Letters of Credit
C-4 Other Real Estate
C-5 Bank Building and Lot
C-6 Furniture and Fixtures

LIABILITIES

D. Deposits
D-1 Individual and Corporations
D-2 Country Banks
D-3 Public Funds
D-4 Demand Certificates of Deposit
D-5 Cashiers' (or Treasurers') Checks
D-6 Certified Checks
D-7 Savings passbooks
D-8 Savings—Christmas and Other 50 Week Clubs
D-9 Time Certificates of Deposit
D-10 Trust Funds
D-11 Postal Savings

E. Sundry Liabilities and Reserves
E-1 Discounts Collected not Earned
E-2 Bills Payable and Rediscounts
E-3 Liability, Letters of Credit
E-4 Reserve for Interest
E-5 Reserve for Expenses and Taxes
E-6 Reserve for Losses
E-7 Reserve for Contingencies

F. Capital
F-1 Capital stock
F-2 Surplus
F-3 Undivided Profits.

Many of the accounts can, of course, be further broken down. For example, certain banks have as many as ten, or even more, reserve accounts, keeping one for each of the various kinds of taxes, such as income, city and county, social security, and unemployment. The same is true of all the asset and deposit accounts.

In addition to having an Undivided Profits account some banks will also keep a Profit and Loss account to which will be charged such items as losses on notes, forgeries, and counterfeit money. Most banks, however, charge these items directly to the Undivided Profits account. The reason that such an account as Undivided Profits is necessary in a bank is that no entries can be made in or out of the Surplus account without the approval of the board of directors, and often of the supervising authorities.

Income and Expense Controls

K—Interest and Dividends Received
L—Other Income
M—Expenses

In many instances all interest and dividend accounts are carried as general ledger accounts. This means, however, that they must be carried each day on the daily statement, and therefore a much larger daily statement form and more work is required than when only the control accounts are maintained in the general ledger. With machine posting a separate sheet can be kept for each income and expense account, and both monthly and cumulative totals can be shown separately. Such a method assists greatly in the preparation of the monthly operating statements.

As one of the reasons for keeping books is to supply management with quick and accurate information, the way that accounts are grouped is important. Using the operating accounts which are found in most banks a suggested form of such grouping is given here:

K. Interest and Dividends Received
- K-1 Interest Received, U. S. Government Bonds
- K-2 Interest Received, Other Tax Free Bonds
- K-3 Interest Received, Other Bonds
- K-4 Dividends Received
- K-5 Interest Received, Loans and Discounts
- K-6 Interest Received, Monthly Repayment Loans
- K-7 Interest Received, Real Estate Mortgages

L. Other Income
- L-1 Service Charges, Checking Accounts
- L-2 N.S.F. and Overdraft Charges
- L-3 Exchange Collected
- L-4 Safe Deposit Rentals
- L-5 Miscellaneous
- L-6 Commissions on Sales of Stocks and Bonds

L-7 Trust Department Fees
L-8 Other Real Estate Rentals
L-9 Profit and Loss on Sale of Bonds

M. Expenses

Personnel
M-1 Salaries, Officers
M-2 Salaries, Employees
M-3 Directors' Fees
M-4 Group Insurance
M-5 Social Security and Unemployment Taxes
M-6 Fidelity and Forgery Insurance

General
M-10 Stationery and Supplies
M-11 Furniture and Fixtures
M-12 Machinery Rentals
M-13 Machinery Maintenance
M-14 Telephone and Telegraph
M-15 Insurance, General
M-16 Miscellaneous

Direct Deposit Expenses
M-20 Clearing House Dues
M-21 Federal Deposit Insurance Premium
M-22 Exchange Paid
M-23 Express, Freight and Drayage
M-24 Postage, Insured and Registered Mail
M-25 Interest Paid

Outside Services
M-30 Audits and Examinations
M-31 Legal Fees
M-32 Credit Reports
M-33 General Dues and Subscriptions

Use and Occupancy
M-40 Building Expense or Rent
M-41 Ice Water and Towels
M-42 Heat, Light and Water
M-43 Janitors' Wages
M-44 Janitors' Supplies
M-45 Miscellaneous

Advertising and Public Relations
M-50 Advertising
M-51 Travel and Entertainment
M-52 Donations
M-53 Miscellaneous

Taxes and Losses
M-60 Federal Taxes
M-61 City, County and State Taxes
M-62 Depreciation, Fixed Assets
M-63 Losses, Loans and Mortgages
M-64 Losses, Monthly Repayment Loans
M-65 Losses on Bonds

M-66 Amortization of Bond Premiums
M-67 Forgeries and Lost Items
M-68 Cash Over and Short.

Such a classification as the above can, of course, be expanded or contracted to meet the needs of the individual bank. While most of the accounts listed will be found on the books of practically all banks, only a comparatively few bring the related accounts together. In most cases the expenses of banks are kept in alphabetical order, with such accounts as interest and losses, cash over and short being carried on the general ledger. The others are kept in a columnar distribution journal and totals are carried forward from month to month until the closing period. Most banks close their books twice a year, many close quarterly, and some monthly.

Bookkeeping Methods

Books in general use by banks include: (1) general ledger, (2) income distribution journal, (3) expense distribution journal, (4) bond ledger, (5) mortgage ledger, (6) liability ledger, the ledger in which the individual note transactions are recorded (in accounting this is called the notes receivable ledger), (7) individual ledgers, which are the ledgers of the individual checking account depositors, (8) savings ledgers, (9) check registers, (10) tellers blotters, or scratchers as they are sometimes called, which are daily sheets on which the tellers record their transactions, and (11) general tickets. In addition to these are many other forms, for example, notes, checks, deposit tickets, financial statements, and special forms for such departments as collections, school savings and other special savings clubs, and safe deposit.

The General Ledger, as in other business, summarizes all transactions; the data therefore come to it from every department of the bank. Most banks use some type of journal in which the daily operations are assembled, and from which the postings to the general ledger are made. In a bank the general ledger is posted and balanced daily. Frequently some individual Income and Expense accounts are carried in the general ledger in addition to the Controlling accounts. In such cases these will be accounts which are not carried in the income and expense distribution journals.

A Daily Statement is prepared every day by a bank, as of the close of business the day before. This daily statement is, to all

intents and purposes, a trial balance of the general ledger. It is therefore helpful if the accounts on this daily statement follow the same order that they follow on the general ledger.

Forms

For those who may be interested in viewing the forms used in banks, the American Bankers' Association has recently issued a loose-leaf book, "Simplified Banking Forms and Procedure," which presents a large number of forms currently in use by banks.

ACCOUNTING FOR BEVERAGE BOTTLERS

By

GEORGE M. AARON *

BRIEF DESCRIPTION OF BUSINESS

The bottlers of carbonated beverages are engaged in the production of bottled drinks. They may be divided into the following four types depending upon their sales outlets:

Franchise Houses—Though not actually engaged in processing these houses are considered part of the industry. They control a secret formula, registered trade mark, and the source of the essential raw material. They prepare the concentrate or syrup which is sold to local bottlers, who through franchises or licenses are permitted to process the concentrate into the finished product, which they sell and distribute under the registered name.

Private Labels—These bottlers manufacture for others under the purchasers' registered or private names, and cater to large restaurants, clubs, hotels, retail chain stores, supermarkets, and department stores.

Branded Names—These are the bottlers of advertised branded names who produce various beverage drinks, such as club soda, pale dry ginger ale, and Tom Collins mixes. They sell to retail outlets, such as groceries, delicatessens, confectioneries, drugstores, and supermarkets through their own selling organization, and deliver by means of their own delivery systems, or sell the finished product to independent distributors.

Own Name—These are bottlers of unknown brands, whose markets include banquet departments of hotels, bars, grills, private clubs, and restaurants.

The main income of all bottlers is from the sale of their products. Some bottlers also secure income from the sale or rental of water coolers, dispensing equipment, and display cases. Bot-

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tlers are generally concerned with four types of work: selling, manufacturing, distribution and management.

Selling—Selling and delivery methods differ widely within the industry. Some companies contact prospective customers through salesmen who open the accounts, which thereafter are serviced by driver-salesmen or route-salesmen; others obtain new outlets by advertisement and demonstrations and are serviced by service-salesmen or uniformed sales-servicemen or independent distributors. Driver-salesmen and route-salesmen are usually given a territory in which, in addition to making deliveries, they seek new outlets. Service-salesmen or uniformed-sales-servicemen deliver as well as sell, and are held responsible for advertising display and complete customer contact. Selling costs include commissions, advertising, refrigerator expenses, brokerage fees, premium plans and deals, concession expenses, and cost of samples used for demonstrations.

Manufacturing—The manufacturing process consists of two steps: (1) preparing the syrup in the laboratory according to formula of the required flavor from sugar and extracts, and (2) bottling, which includes washing and sterilizing the bottles, measuring the syrup and filling the bottles, adding filtered water and carbonic gas, and capping, labeling, and placing in cases.

The entire bottling operation is done by automatic machinery tended by a crew. The packed cases are then stored in the storage department usually by brands and by sizes. It is a mass, continuous type of production. As machinery is used extensively, the labor cost is comparatively small. Principal purchases are sugar, extracts, acids, color, syrup, carbonic gas, crowns, labels, foil, cartons, and glass.

Distribution—Since deliveries are required almost daily, the industry is highly motorized. A large fleet of trucks must be maintained or distribution made through independent distributors or subfranchises. Where distribution covers a wide area, branch warehouses are maintained. Delivery costs constitute a major cost of operations, and should be carefully accounted for.

Theory of Accounts

Accounting for the industry differs materially, depending upon the type of bottler, his method of operations, and the size of his plant. Generally, however, a progressive bottler seeks the following information from his accounting: (1) the financial status of his business with emphasis on his investments in machinery, inventories, and delivery equipment and the liability for deposits on bottles and cases, and (2) the net profit for the period; income, cost, and expenses of the business as an entity and for each department and by various brands and bottle sizes.

The organization of a bottler is usually divided into (1) the bottling department, (2) the sales department, (3) the delivery department, and (4) general executive offices.

The accounting for the expense of each department must be ascertained and if more than one brand and bottle size is produced, sales, cost of production, and department expenses are analyzed by brands and bottle sizes. Thus all expenses are apportioned to each brand and size upon some equitable basis.

To control operations, and to measure the efficiency of various departments, the bottler having a large business also prepares budgets, which are basically estimates of sales and costs. Costs are full costs, including materials, bottling, selling, delivery, and general overhead. To assist in the preparation of the budget, statistics of the following are compiled: (1) sales by brands and bottle sizes, by area, and by customers, (2) cost of production, and (3) selling and delivery expenses by brands and bottle sizes. (See Operating Statements Secured—Statement of Full Cost.)

The handling of bottles and case loss, deposits payable, and manufacturing costs are peculiar to this industry. Bottles and case loss is handled differently by various plants. The three methods generally used are:

1. *Plant Inventory*—Purchases of bottles and cases are charged to Boxes and Cases account. Periodically an inventory of bottles and cases at the plant is taken and the boxes and cases inventory and purchase account reduced to this amount. The difference is "bottle and case loss."

2. *Plant and Trade Inventory*—The method used is the same as (1), the inventory consisting of the plant inventory and inventory at dealers, if ascertainable; or plant inventory plus amount out on deposit, if record of deposits are kept.

3. *Depreciation Method*—Separate accounts are maintained for cases and bottles. Cases are depreciated either at rate of 20 to 25 per cent per year or 1 to 2 cents per case sold; bottles are depreciated at 25 to 50 per cent per year, or 1 to 3 cents per case sold. The amount of depreciation is "loss on breakage."

The recording of deposits received on cases and bottles varies according to the class of bottler and the volume of his business. Some bottlers make no record of deposits received, including the total charged as Sales and refunds on returns as a deduction from Sales. Others analyze the amount charged and record deposits received and refunded as a separate item.

There is no uniform method of calculating manufacturing costs for each brand and bottle size. One group considers costs to be only the actual cost of materials used; another employs a theoretical cost, that is: cost of quantity of ingredients used to make up a batch divided by number of cases, which should be received from the batch, to which is added an estimated labor cost. Another method is to calculate the costs of materials and labor on a test run and consider this cost as average cost. Plant overhead is excluded on the theory that expenses cannot be definitely allocated to brands or bottle sizes. In planning a cost system the factors to consider are size of organization, number of brands, flavors, bottle sizes produced, and method of operation.

Accounts Required

The accounting system must be planned to furnish the necessary information to aid the bottler in his work and to accomplish the essential objectives of obtaining:

1. A statement of assets and liabilities and net worth
2. A detailed operating statement
3. An accurate unit cost per case of production; selling, delivery, and general administrative expenses for each type of product, brand, and bottle size
4. A control of material and finished goods inventory, cash, receivables, and deposits for containers
5. General information for preparation of local, state, and Federal tax returns

Manufacturing and Production Costs

The production costs in bottling are as follows:

1. The material costs of the syrup including sugar, extracts, color, acid, carbonic gas, crowns to cap the bottles; the foil placed on necks; labels pasted on bottles, and cartons (when sold in packages)

2. The expenditure for freight-in on purchases, licenses, and permits; state taxes on manufacture, factory supplies, such as alkali, oil, and grease; and formulae experimental expenses
3. Salaries of chemist and laboratory assistants; wages paid to produce goods, and cost of supervision and watchman required in manufacturing department
4. General manufacturing overhead consisting of rent, repairs to building and machinery, depreciation of equipment, amortization of leasehold improvements, label plates, insurance, light, heat, and power, water, and miscellaneous overhead
5. Loss due to breakage of bottles, sometimes erroneously considered a material cost

Selling Costs

The bottlers' selling costs will depend upon the type of bottler, his selling methods, and the class of trade to which he caters. The expenses in general will include sales salaries, commissions, traveling expense, general selling expense, advertising, samples, premiums, deals, sales auto expenses, telephone and telegraph, refrigerator and cooler expenses, and unclassified.

Delivery Costs

This classification of expenses likewise depends upon the method of distribution. If distributed by company trucks it would include:

1. Salaries and commissions of drivers and helpers
2. Cost of operating trucks—gas, truck repairs, depreciation of equipment, etc.
3. Painting and repairing cases, depreciation of cases, loss of bottles and cases, freight on goods out, freight on empties in, and similar items

If sold at the plant to independent distributors, delivery costs would not include salaries and commissions of drivers and helpers and cost of operating trucks.

General Administrative Expenses

1. *Office and Management Expenses.* These briefly include expenditures for salaries of executives and office; office stationery and supplies, insurance and bond premiums, professional fees, and depreciation of office furniture and fixtures.
2. *Taxes.* Operating expenses of bottlers include social security taxes, state and Federal unemployment taxes, use tax on bottles purchased, and in some states excise taxes on sale of beverages, personal property taxes, not including Federal income taxes.

Most of the foregoing costs and expenses are fixed, not being affected by volume of business. These include rent, depreciation on

buildings, machinery and equipment, amortization of leasehold improvements, insurance, manufacturing taxes, and licenses and permits.

The industry is highly competitive, selling prices are fixed, and many changes are constantly taking place; consequently cost control is important. Records should give as much information as possible, not only in dollar amounts, but also in total units by brands and bottle sizes, and should be arranged to reveal the information almost at a glance.

Cost of Goods Sold

A brief outline of a cost system used in determining an accurate cost of goods sold is:

Material Cost—All materials purchased are charged to Purchases—Raw Materials account. Periodically an actual inventory of materials on hand is taken and the balance of the Purchase account reduced to this figure by transferring difference to Work in Process account.

Labor—The Labor account is charged with all productive labor, and transferred to Work in Process account.

Manufacturing Expenses—All items of manufacturing overhead are charged to Deferred Assets—Manufacturing Overhead, and periodically, the total amount to be absorbed (determined by multiplying the number of cases of each class of product manufactured by the unit rate of manufacturing expenses applicable to that product) is transferred to Work in Process. The Balance in the account is the amount unabsorbed or overabsorbed.

Cost of Goods Sold—An analysis of the sales record should give number of cases of each class of product sold, and analysis of costs should give factory unit cost of the product. The total number of cases of each size sold multiplied by the manufacturing cost of such case equals the total cost for that size. The aggregate of the cost of all sizes sold is the cost of goods sold. (See Statement of Full Costs.)

Generally large accounts of a bottler are classified into assets, liabilities, revenue, expenses, and deductions from income, and perhaps subdivided according to specific operating departments, with alphabetical, numerical or decimal code symbols, as shown below:

Account	*Symbol*
Assets:	
Current	A 1 to A 40
Fixed	A 50 to A 60
Liabilities:	
Current	L 1 to L 50
Notes Payable	L 1
Banks	L 1-1 or L 1 a
Creditors	L 1-2

Revenues:	
Sales	P 1 to P 25
Subsales Accounts	P 1
for each brand	P 1-1 or P 1 a to P 1 as required
Expenses:	
Manufacturing	M 1 to M-
Selling Expenses	S 1 to S-
Delivery Expenses	D 1 to D-
Administrative Expenses	G 1 to G-
Other Income	#100 to 150
Deductions from Income	#151 to 200

In the general ledger, each main expense group may be set up on a columnar ledger sheet, with subexpense accounts recorded in the analysis columns. The trial balance is taken in total amounts and schedules of subexpense columns may be prepared later.

The possible extent of expense classification following the departments of the organization may be as follows:

Expense Classification *

	Manufacturing M	Selling S	Delivery D	General G
1. Commissions		1	1	
2. Depreciation—Amortization	2		2	2
3. Gasoline and Oil		3	3	
4. Insurance	4	4	4	4
5. Licenses and Permits	5		5	5
6. Light, Heat, and Power	6	6		6
7. Loss—Breakage	7		7	
8. Postage		8		8
9. Rent (proportion)	9	9	9	9
10. Repairs	10		10	10
11. Supplies	11	11		11
12. Salaries of Officers (proportion)	12	12		12
13. Salaries		13	13	13
14. Taxes	14		14	14
15. Telephone and Telegraph		15		15
16. Traveling		16		16
17. Tires and Tubes		17	17	
18. Wages	18		18	
19. Unclassified	19	19	19	19

* Each item of expense affects more than one department.

Operating Statements

Bottlers desire that their operating statements show:

1. Sales in dollar value in totals and for each brand and quantities by bottle sizes, in comparison with previous periods

2. Manufacturing costs in totals, supported by a schedule of costs for each brand and size
3. Percentages of costs and expenses by departments to net sales.

X BOTTLER

Comparative Statement of Income and Profit and Loss for the Years Ended December 31, 19— and 19—.

	Increase or Decrease
GROSS SALES, *From Schedule*	
Less: Sales Discount	
Net Sales	
COST OF GOODS SOLD, *From Schedule*	
* Total Cost of Material Consumed	
Direct Labor	
* Factory Overhead	
Total Cost of Goods Sold	
GROSS PROFIT ON SALES	
* SELLING EXPENSES	
* ADMINISTRATIVE EXPENSES	
* DELIVERY EXPENSES	
Total Operating Expenses—From Schedule	
PROFIT FROM OPERATIONS	
OTHER INCOME	
TOTAL INCOME	
DEDUCTIONS FROM INCOME	
NET PROFIT BEFORE FEDERAL INCOME TAX	
FEDERAL INCOME TAX	
NET PROFIT FOR THE YEAR	

The totals for gross sales, cost of goods sold, and other supporting data are given in detail in supporting schedules as follows:

STATEMENT OF GROSS SALES

	December, 19-	December, 19—	Increase or Decrease
Own Brands			
Enumerate			
Total Own Brands			
Private Brands			
Enumerate			
Total Private Brands			
Other Brands			
Enumerate			
Total Other Brands			
TOTAL GROSS SALES			

* These major groups will be supported by detailed schedules.

STATEMENT OF FULL COSTS—(*Period Covered*)

	Costs Per Case		
		Brand Name	
	12-24 oz.	*24-12 oz.*	*24-6 oz.*
Materials	$	$	$
Factory Labor			
Factory Overhead			
Manufacturing Cost	$	$	$
Selling Expenses			
Delivery Expenses			
General and Administrative Expenses			
Cost of Doing Business			
Full Cost—Before Glass Loss			
Loss of Glass with trade			
Full Cost			

BALANCE SHEET

The ordinary balance sheet found on the books of a medium-sized bottling plant may be shown as follows:

BALANCE SHEET AT DECEMBER 31, 1939

ASSETS

CURRENT ASSETS
- Cash
- Accounts Receivable
  - Customers (Detailed as to Areas—Warehouses)
  - Other
- Loans Receivable
- Inventories
- Deposits Receivable
  - TOTAL CURRENT ASSETS

FIXED ASSETS
- Machinery and Equipment
- Leasehold Improvement
- Automobiles and Trucks
- Sketches and Plates
- Syrup Room Equipment
- Total
- Less: Reserve for Depreciation and Amortization
- Trade Marks and Good Will

INVESTMENTS IN AFFILIATED COMPANIES

DEFERRED CHARGES
- Licenses and Permits—Prepaid
- Unexpired Insurance
- Manufacturing Overhead—Prepaid (Unabsorbed)
  - TOTAL ASSETS

LIABILITIES AND CAPITAL

CURRENT LIABILITIES
- Accounts Payable
- Due to Customers
- Notes Payable
- Deposits—Customers—on Bottles and Cases
- Expenses and Accrued Expenses Payable
- Wages, Salaries, and Commissions Payable
- Provisions for Taxes Payable

FIXED LIABILITIES

CAPITAL

SURPLUS

TOTAL LIABILITIES AND CAPITAL

The assets and liabilities of a bottler are valued in the conventional manner. The items are self-explanatory, except those which are peculiar to this industry. These require comment.

Inventories

The inventories are valued at cost or market price, whichever is lower, and usually are composed of filled goods, materials and supplies, contract merchandise, and empty bottles and cases. The filled goods stock is priced at factory cost, including cost of materials, factory labor and manufacturing overhead, except bottle breakage cost. Materials and supplies are valued at invoice price plus cost of freight-in.

Work in process is seldom inventoried, for the preparation of syrups and bottling operations are usually completed daily, and the amount involved in the ageing of certain extracts is small.

The inclusion of empty bottles and cases in the inventory or in the balance sheet as a fixed asset depends upon the method of accounting. If inventoried, they are valued on the same basis as materials and supplies, and if depreciated upon some percentage basis, are considered fixed assets, excluded from the inventory, and shown on the balance sheet at the net value.

Deposits Receivable

It is the custom of the trade to pay deposits on gas tanks, refrigerators, and other containers in which raw materials, such as carbonic gas and extracts, are shipped, and if the bottler also deals in full goods of other products, on bottles and cases. These deposits are refundable upon the return of empties.

Deposits Payable

When merchandise or dispensing equipment is shipped to customers a deposit on bottles, cases, and equipment is usually charged at varying rates, depending upon the customer. These deposits are refunded upon the return of the empties from the customers. The deposits on cases and bottles usually are shown on the books and if an inventory of cases at the trade can be obtained, the book figure is adjusted to such amount. If an inventory at the trade is not obtainable, the book figure is reduced by an estimated percentage, which, it appears from experience, will not be returned due to loss or breakage.

However, where the turnover of bottles is large the detailed clerical work involved in keeping track of bottles in and out is enormous. In such cases no liability account is maintained on the books. At statement date, either an estimate is made (depending on volume of sales and shown as a liability) or a comment is made on the balance sheet concerning the existence of this contingent liability to accept return of all empty bottles.

Due to Customers

When the amount charged, including deposits, is paid and the empties subsequently returned, the customers account will show a credit balance. The aggregate of these balances should be shown as a liability.

Bookkeeping Methods

The most important books and records kept by the bottler are:

The General Ledger controls all other ledgers and records; contains the accounts for assets, liabilities, capital, surplus, and income and expense.

Accounts Receivable Ledgers are detailed records of transactions with customers securing periodical invoices and statements. Bottlers maintaining distribution warehouses usually keep a separate ledger for each warehouse.

Inventory Ledgers are perpetual inventories of finished stock by brands and bottle sizes for the storage department and each warehouse, showing approximate maximums and minimums that should be on hand.

The Deposits Receivable and Deposits Payable Record—The general ledger (columnar forms) account may be used where the number of individual accounts are few; if numerous, a subsidiary ledger or card record is kept. The account shows the number of bottles and cases and total dollar amount outstanding.

The Equipment and Depreciation Record is a register showing cost, amount depreciated, remaining cost, rate of depreciation, and depreciation to be

charged for current year, distributed monthly or quarterly, for each depreciable asset of the plant, delivery equipment, and office. Major items are recorded individually, while small items are grouped in total.

The Accounts Payable Ledger is a detailed record of transactions with individual creditors.

Payroll Sheets and Individual Employee Records are kept for each department, if the number of employees is large. Otherwise one payroll sheet is prepared and analyzed into factory labor, selling, delivery, and general.

The Automobile Expense Record is a ledger or card record showing date of purchases, rate of depreciation, repairs, cost of operations, and approximate mileage covered. This record is used to compare different makes of trucks and to approximate the cost per case for delivery.

The Daily Production Record shows on one sheet daily production of each brand and size, inventory at beginning of month, sales, and what closing inventory at end of month should be.

The Driver-Salesman's Daily Report shows amount loaded out, full and empties returned, cash collected, and amount charged to customers.

Entries are made in these records in the usual manner adopted in acceptable accounting systems from detailed records accumulated in various original books of entry and analysis of these books.

ACCOUNTING FOR BOOK PUBLISHERS

By

J. K. Lasser*

Brief Description of Business

Book publishers engage in the original production and sale of many types of books; or they may get their income from the reprinting of books published by others. The publisher is usually concerned only with the production and marketing of a book. Very few have their own printing plants. They sell through a great many sources—bookstores, agents, schools, colleges, and book clubs, or by mail orders. But, as is true in most enterprises, sales are secured from the sales effort and promotion of the publisher.

The publisher's operations may begin with the origination of the idea for, or the acceptance of, a manuscript. After it has been read and edited, it must be prepared for the printer. The latter may involve securing the illustrations and art work essential to production, making engravings, and many other steps incidental to the physical form of the book. Before the actual printing stage, the publisher calls his effort "work in process." The completed product in the form of printed sheets is called "sheet stock." Upon completion of the printed sheet stock, it is gathered, folded, sewed, and bound by a bindery. It is then known as "bound stock." The publisher's inventory on his own premises will generally consist only of bound stock, as delivered by the bindery.

The publisher generally deals with the author through a contract providing for a royalty upon sales of the book. The accounting with the author and payment for royalties due are usually on a semiannual or annual basis.

Theory of Accounts

The accounting for profit or loss among book publishers depends upon the type of books published and the markets used to secure sales. Some confine their efforts to one class of sales—per-

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haps textbooks which are sold directly to the boards of education—or books sold directly to bookstores. Others use these and a great number of other outlets.

Despite the market sought, the progressive publisher seeks the following information from his accounting:

1. The income, costs, and expenses for each type of sale are first secured as accurately as possible. All expenses disbursed in behalf of more than one type of sale are distributed as equitably as possible to each.

2. The accounting for the income and expenses of each department, or type of sale, is then ascertained. This recognizes that the organization of a publisher is divided into groups necessary to edit and manufacture a book, solicit the sales, ship and bill the sales, and generally administer the business. Publishers, therefore, generally segregate their expenses into these groups. Thereafter they may analyze each group to meet the requirements of the situation.

3. Title accounting is an important aid in controlling manufacturing and other departments. This is an essential in management. It provides statistics for use in pricing inventories, and it can furnish a constant guide to efficiency of operating departments in their job.

Accounts Required

The development of the accounts required by the book publisher proceeds upon the belief that the publisher seeks: (1) analysis of various types of sales and the cost of these sales, and (2) the division of all other expenses for each classification of sales.

The usual method of segregating sales income, costs, and expenses for each sales division is to set up the following accounts—

Standard Classification of Income and Expenses for Each Type of Sales

Income Accounts	Cost and Expense Accounts
Gross Sales	*Manufacturing*
Returns and Allowances	Paper, Printing and Binding
Cash Discounts Allowed	Plant Cost
Sales of Rights	Inventory Write-offs
Subsidies Received	Manufacturing Department
Miscellaneous Publishing Income	

Royalties
- Authors' Royalties
- Authors' Advances Written Off

Editorial
- Salaries
- Outside Editorial Work
- Other Editorial Expense

Promotion
- Advertising
- Direct Mail
- Catalogs and Circulars
- Complimentary Copies
- Exhibits and Conventions
- Promotion Salaries
- Other Promotion Expenses

Selling
- Salesmen's Compensation
- Outside Commissions
- Sales Office Salaries
- Branch Office Salaries and Expenses
- Traveling and Entertaining
- Other Selling Expenses

Shipping and Warehousing
- Salaries
- Rent and Occupancy Expense
- Materials and Supplies
- Outside Warehouse Fees
- Transportation Not Rebilled
- Other Shipping Expenses

Overhead
- Administrative Salaries
- Occupancy
- Bad Debts and Collection Costs
- Insurance
- Employee Profit Sharing and Retirement Plans
- Taxes on Payrolls, etc.
- General Expense

A separate set of accounts, except the shipping and overhead groups, is usually provided for *each division of sales.*

All the foregoing accounts are concerned exclusively with publishing operations. Nonpublishing income and expense (interest, dividends, income from real estate, profit or loss on sale of assets, income from printing business, etc.) are usually recorded in other accounts.

Account Definitions

Income

Gross Sales means total original billings for sale of books. It does *not* include any of the following:

Income from rights, permissions, plate rental, etc.

Commissions or fees for handling works for account of others.

Remainder sales. (The proceeds of remainder or job lot sales should be netted against the corresponding inventory write-off.)

Postage or transportation collected from customers. (These are offset against the corresponding expenditures.)

A separate sales account is kept for each sales division.

Returns and Allowances include all credits allowed customers for returns or adjustments. They are recorded by sales divisions.

Cash Discounts Allowed represents discounts to customers for prompt payment. For convenience, all discounts are sometimes recorded in one account. However, if the ratio of discounts to net sales is materially different in different divisions of sales, the total is broken down. (This can be done on the basis of percentage determined by tests.)

Income from Rights includes the *publisher's share* of income from book club, reprint, digest, serial, anthology, motion picture, drama, radio, foreign, and similar rights. This income is separated by sales divisions.

Subsidies are recorded separately, even though for title-accounting purposes the subsidy may be applied against manufacturing or other specific cost. There are many forms of specific and over-all subsidies—and the accounting for subsidies has had much diversity of practice. For good cost accounting it is urged—particularly in the University Presses—that publishers—

Have separate ledger accounts for specific subsidies and over-all subsidies. They should not credit any subsidies to expense accounts.

Calculate all unit book costs on the total spent to produce the books—before applying subsidies.

Show full manufacturing costs on the operating statement, and show subsidies separately.

Serious distortion in cost of books sold results if you reduce plant or manufacturing costs by netting subsidies against them. Comparisons for management guidance are then meaningless. Specific subsidies are usually deducted from production costs on the operating statement.

Miscellaneous Publishing Income—all incidental publishing income from other than sales of books and subsidiary rights. This includes commissions or handling fees on books published for account of others. It is separated by sales divisions if important in amount.

Manufacturing Costs

These production costs—or manufacturing costs—are normally computed monthly, from the cost per copy of each title, times the number of copies sold. Unit costing results automatically from a perpetual inventory system. The specific items which are included in production cost are—

The net cost of paper, cloth, and other materials consumed in the production of the book and its jacket—including inward freight.

Presswork, folding, gathering, sewing, binding, and any transportation or

other services incidental to those processes for the book and the jacket—i.e., the entire net bill of the printer and binder for all work following completion of the plates until the book is ready for shipment to customers.

The cost of jackets, illustrations, and any other matter affixed to the book.

Plant cost is essentially the expenditures incurred between approval of a manuscript and completion of copy and printing plates for the printer. The chief items included in plant cost are:

Permissions not charged to the author
Copyrights
Translations
Outside editorial jobs—such as indexing, typing, special contributions—if not charged to the author
Artwork, photographs, etc. (including jackets)
Cuts, dies, engravings, etc. (including jackets)
Composition on linotype, monotype, or other source
Proofreading and make-up expense to get pages ready
Electrotypes, offset, or other process plates

Three methods for the expensing of plant costs are found in various publishing houses—

1. Some charge the entire plant cost to expense in the month—or the year—of first publication.
2. Some add it to the inventory; to include it in a unit book cost. Then it is spread over the number of books printed in the first edition—or perhaps some specific number of editions.
3. Some amortize the plant cost (monthly, quarterly, or annually) on a percentage basis over two or more years.

No one of these methods is consistently followed by even a majority of the book publishers. It is the author's belief that all plant cost should be spread over only the first edition of a book. The problems concerned with spreading plant cost and a review of tax implications in methods currently used are given in *Handbook of Tax Accounting Methods.**

Inventory write-offs usually include all sums charged against the year's operations by reason of price reductions, or unsalable or excess stocks, including losses on remainder and job-lot sales. The inventory write-off is one of the most important accounting determinations in a publishing house. Objective standards are established for deciding what constitutes overstock. Stock in excess of the projected sales within a reasonable period are written off or reserved for, even though the books are not destroyed or remaindered until later.

Manufacturing department cost is intended to include the salaries

* *Handbook of Tax Accounting Methods,* edited by J. K. Lasser, D. Van Nostrand Co., Inc., New York, N. Y., 1951, p. 177.

and expenses of employees who set up physical specifications of books and handle manufacturing operations.

Royalty Expense

Author's royalties cost is normally only the royalties earned on sales during the period. Lump-sum payments for outright purchase of manuscripts would also properly be included.

Authors' advances written-off includes the provisions for write-offs or the actual write-offs.

Editorial Expenses

Sound costing has a record of the amount of editorial cost incurred for each division of sales. Where two or more lines are served by a single editorial department, editorial employees may keep records of approximate time spent on each class of books. The same applies to allocable expenses, such as traveling. Outside fees, if not directly attributable to a particular division of sales, can usually be reasonably prorated. Usually, the editorial expenditure is the full expense of the period in which it is done. Editorial effort is not inventoried. In some publishing houses, a part of editorial salaries is charged as plant cost of specific titles. This occurs where editorial employees actually create material which becomes a part of the published book—as artwork, special sections of the book, major revisions, etc. In those cases, employees keep sufficient time records to permit transfer of the costs of such work from editorial salaries to plant cost. Editorial expenses may be grouped under three headings:

Editorial Salaries. Compensation of all personnel in the editorial department, except such part as represents time chargeable to direct work on particular books.

Outside Editorial Fees. Fees of editorial advisors, consultants, etc. This account is not used for jobs which are direct costs of particular books—such as special art work, translations, revisions, indexing, etc. Those are charged to plant cost.

Editorial Expenses. Traveling, entertaining, and other direct expenses incurred by the editorial department.

Promotion

The expenses included under the heading of promotion are:

Advertising. All direct costs of advertising in newspapers, maga-

zines, radio, television, or other media, including cooperative advertising.

Direct Mail Promotion. The cost of preparation and mailing of direct mail solicitation, including cost of lists. Direct mail postage is charged to a separate account. (Where there is a separate direct mail division, these accounts will not appear in the other divisions.)

Catalogs and Circulars. The paper, printing, and outside art or preparation costs of catalogs, leaflets, counter display cards, posters, etc. This does not include direct mail circulars.

Complimentary Copies. The cost of copies distributed free for publicity, review, and other promotional purposes. The cost to be charged here consists of paper, printing, and binding—and postage or transportation cost. This account usually does not bear any part of the plant cost. The reasoning is that promotion should not assume any of the basic cost of publishing a title, but only the cost of manufacturing and delivering the additional copies required for promotional purposes. This is the practice of the majority of publishers.

Exhibits and Conventions. Display booths, attendance at conventions, etc.

Promotion Salaries. Compensation of all personnel engaged in advertising, direct mail and publicity work, including stenographic and clerical assistants.

Other Promotion Expenses. All direct expenses of the promotion department which do not fall within any of the preceding accounts. Do not include rent or other overhead expenses in this item.

Selling

When a single sales force handles several lines, selling expense is prorated. Ordinarily, the dollar volume is the basis for the allocation—but if a more accurate basis can be secured, it may be used. The object is to make the most realistic allocation to each division of the costs for which it is responsible. The principal elements of selling costs are these:

Salesmen's Compensation. Salaries, commissions, and bonuses to salesmen. This does not include any office personnel, ór sales manager unless he engages in direct selling.

Outside Commissions. Commission to independent sales agents or representatives.

Sales Office Salaries. Sales manager, clerical, and any other non-selling personnel of the sales department at the home office.

Branch Office Salaries and Expenses. Entire expense of maintaining branch sales offices—including rent, office expenses, clerical salaries, etc.—but *not* including compensation or expenses of salesmen.

Traveling and Entertaining. The expenses of all sales personnel are included here.

Other Selling Expenses. All direct expenses of the sales department which do not fall within any of the preceding accounts.

Shipping and Warehousing

The basis for allocating shipping costs may be in proportion to the number of copies shipped by each division. In larger companies, this may give distorted results. If the distortion is material, it is worthwhile to use a more detailed allocation—for example, charge space costs in proportion to inventories on hand, salaries and materials in proportion to a composite of number of copies and number of orders. The various expense accounts under the head of shipping and warehousing are:

Salaries. All shipping and warehouse personnel.

Rent and Occupancy Expense. Rent, or corresponding ownership costs, and heat, light, repairs, depreciation, etc., for the warehouse and shipping room. (This differs from the treatment of rent and occupancy for the rest of the publishing organization. Other rent is charged to general overhead rather than to departments. The reason is the major importance of rent in warehouse cost, and the different character of the warehouse premises. Moreover, many publishers contract for outside warehouse service at an overall charge which includes rent.)

Shipping Materials and Supplies. Containers, wrapping materials, and supplies.

Outside Warehouse Fees. Charges of commercial warehouse or shipping agent, if you purchase this service from an outside company.

Transportation Not Rebilled. Postage, express, etc., not paid for by customers. To keep figures on mail orders comparable, *all* mail-order postage is considered paid by the purchaser (even though the amount of the postage may be allowed as a discount). Therefore, the total of mail-order postage is treated as a reduction of gross sales and not as an expense.

Other Shipping Expenses. Other items of shipping or warehouse expense which do not fall under one of the preceding captions.

Overhead

Here are accumulated those expenses which apply to the company as a whole and are not under the control of department heads. Most companies have considerable numbers of separate accounts for the various overhead expenses. We do not attempt to list them all here, but define the nature of the overhead costs under a few main headings.

Administrative Salaries. Compensation of all employees not belonging directly to the manufacturing, editorial, promotion, sales, or shipping department—particularly the executive staff; the accounting, credit, billing and personnel departments; and general office-service employees such as mail clerks, messengers, receptionists, telephone operators, etc.

Occupancy (except warehouse and shipping department). This includes rent (or corresponding costs if the building is owned), heat, light, cleaning, depreciation, maintenance and repairs for all departments except the warehouse and shipping.

Bad Debts and Collection Costs. Provision or actual write-offs, plus cost of collecting accounts through agencies or legal action.

Insurance. All kinds, including business life insurance and group policies, except employees' retirement plan.

Employee Retirement or Profit-sharing. Total cost to the company, including employees' life insurance paid for by the company.

General Expense. Miscellaneous expenses applicable to the company as a whole, such as:

Travel and expenses of executives and directors
Legal and accounting fees
Employee welfare activities
Memberships and dues
Telephone and telegraph
Stationery, etc., and office postage

These overhead costs are not usually redistributed among the *functional* departments (manufacturing, editorial, selling, etc.). They are kept separate from departmental costs. But allocation of overhead costs to divisions of sales is needed. Only the publisher whose entire business is in a single classification of sales is spared this problem. Larger companies, to obtain a true picture of operating results, must spread overhead to the various classes of sales in logical proportions. In theory, each division is charged with the

actual cost of that portion of overhead services which are incurred because of its activities. But it is not always practical to follow the theory meticulously. Therefore, overhead is sometimes allocated in proportion to the dollar volume of sales of each division.

Accounts Needed

Building an acceptable accounting setup for a book publisher recognizes the need to have (1) accounts for each type of sales, (2) expense accounts for each of the classes of expense needed to secure each type of sales—as is shown in the breakdown opposite.

Broad Expense Classification That Might Be Used

Accounts	Manufacturing and Royalty	Editorial	Promotion	Selling	Shipping and Warehousing	Overhead
*1. Advertising			401			
2. Authors' Advances Written Off	202					
3. Authors' Royalties	203					
4. Bad Debts and Collection Costs						704
*5. Branch Office Salaries and Expenses			405	505		
*6. Catalogs and Circulars			406	506		
7. Complimentary copies			407			
*8. Direct Mail Costs			408	508		
9. Editorial Fees		309				
*10. Employee Profit Sharing and Retirement Plans						710
11. Exhibits and Conventions			411	511		
*12. General Expense	212	312	412	512	612	712
13. Insurance					613	713
14. Inventory Write-offs	214					
15. Legal and Accounting Fees						715
*16. Materials and Supplies	216	316	416	516	616	716
17. Memberships and Dues	217	317	417	517	617	717
*18. Occupancy Costs					618	718
19. Office Costs	219	319	419	519	619	719
20. Outside Commission				520		
21. Outside Editorial Work		321				
22. Outside Warehouse Fees					622	
*23. Production Costs—composition, paper, printing, and binding	223					
*24. Plant Cost	224					
25. Postage	225	325	425	525	625	725
*26. Salaries	226	326	426	526	626	726
*27. Salesmen's Compensation				527		
28. Stationery and Supplies	228	328	428	528	628	728
29. Telephone and Telegraph	229	329	429	529	629	729
30. Transportation not rebilled					630	
31. Traveling and Entertaining	231	331	431	531	631	731

* These are usually divided into a good many other accounts. The text suggests the division.

Numbers	*Will Designate*
101–199	The sales groups, together with the returns and allowances within each
201–299	Manufacturing expenses and royalty costs
301–399	Editorial expenses
401–499	Promotion expenses
501–599	Selling expenses
601–699	Shipping and warehousing expenses
701–799	All the overhead costs
801–899	Balance sheet accounts

All the essential accounts have been listed previously under the seven functional divisions for the expenses. It would be simple to set up numerical classifications for—

Sales and all the accounts effecting returns and allowances and the cash discounts.

Expenses—divided into the seven classifications.

Operating Statement

A very brief operating statement—to be set up for *each* type of sales—might be—

Form of Operating Statement

Monthly Figures			Year to Date			
This Month	Same Mo. Last Yr.		This Year	Last Year	% This Year	% Last Year
$	$	GROSS SALES	$	$		
		Returns, allowances and cash discounts				
					100%	100%
		NET SALES				
		COST OF BOOKS SOLD				
$	$	Manufacturing Cost	$	$	%	%
		Less: Specific Subsidies*				
		Authors' Royalties				
		Net Cost of Books Sold				
$	$	*Gross Margin on Sales*	$	$	%	%
		EXPENSES				
		Editorial				
		Promotion				
		Selling				
		Shipping and warehousing				
		Overhead				
$	$	Total Expenses	$	$	%	%
		PUBLISHING PROFIT OR LOSS				
		Rights and miscellaneous income				
		Over-all subsidies and endowment income*				
$	$	NET INCOME	$	$	%	%

* For use only in University Press Publishing where these are had.

STATISTICS

Number of books sold
Average selling price
Average cost per copy manufactured
Average production cost per copy sold

BALANCE SHEET

The usual balance sheet accounts found on the books of the book publisher may be listed as follows:

ASSETS

CURRENT
- Cash in Banks
- Cash on Hand
- Stamps
- Investments
- Notes Receivable
- Accounts Receivable (usually divided by types of sales)
  - *Less:* Reserve for Bad Debts
- Inventory—Paper Stock
  - Other Supplies
  - Books in Process
  - Books in Sheets
  - Bound Books

DEFERRED
- Advances against Royalties
- Prepaid Expenses
- Deferred Costs

FIXED
- Furniture and Fixtures, Book Plates, Copyrights or Goodwill — *Less* Applicable Reserves

LIABILITIES AND CAPITAL

CURRENT DEBTS
- Notes Payable
- Accounts Payable
- Royalties Payable on Sales to date of statement
- Other Accruals
- Tax Provisions

DEFERRED DEBT

CAPITAL STOCK

SURPLUS

The assets and liabilities of the book publisher are valued in the usual manner. Certain items are peculiar to the business and therefore require special comment.

Inventories

The book publisher's inventory is generally in five parts; the disbursement upon the expense of books not yet sent to printers (books in process), the paper or stock to be used in books, the books in sheets (those already printed but not yet bound), and the bound books. In addition, he may have certain other supplies.

As a general rule, the inventories never include any proration of publishing overhead costs. They contain only the actual costs in production or manufacturing.

If the accounting system of the publisher spreads cost of plates over one or more editions of a book, the inventory will naturally include a proper proportion. If plate costs are depreciated upon some percentage basis, they are usually considered fixed assets and excluded from the inventory.

Books in process usually cover the cost of preparing a book for publication, including the real disbursements to authors for their expenses, the cost of art work and photographs, cost of reviewing or editing the book, the copyright expense, but not any promotional or other prepublication expense. If the "process" accounts are deemed to be current assets, conservative practice requires that they be confined to active titles about to be printed and not speculative advances to authors or others.

Authors' Advances and Royalties

The relation between the publisher and the author finds itself expressed in two types of accounts upon the balance sheet. The publisher often makes advances prior to the accumulation of royalties due to the author. These advances are not deemed current assets. Conservative practice requires that adequate reserves be had against them in order that they may represent a reasonable estimate of the recoveries from the royalties to be paid to the authors.

The arrangement between the publisher and the author is usually upon a percentage of sales with payment to the author quarterly, semiannually, or annually. Balance sheets, therefore, should always state the accrued amount due authors as a result of sales during the period to the date of the balance sheet.

Book Plates

If the system of the publisher is one in which the plate cost is first carried as an asset, and then depreciated on some sort of a percentage basis, or charged out on a basis of the predetermined number of titles, the balance sheet will usually state the cost value of the plate less the accrued depreciation.

Bookkeeping Methods

The bookkeeping system of the book publishers generally includes the following records to which transactions are posted from books of original entry:

The General Ledger controls all other ledgers and records; contains the record of assets, liabilities, capital, and surplus; also contains the detailed income and expense accounts unless they are included in supporting ledgers. From this record, balance sheet and operating statements are prepared.

The Accounts Receivable Ledgers contain a detailed record of transactions, with customers securing periodical invoices and statements.

The Inventory Ledgers contain detailed records of the paper stock, supplies, bound books, and sheet stock. These generally are in the form of perpetual inventories indicating the situs, cost, transaction, and balance for each item.

The Work in Process Ledger contains a detailed cost record for each title. In it is assembled the expenses for each book so that the completed record secures the basis for costing individual books throughout the balance of the records.

Fixed Assets is a register which generally contains an inventory of book plates, furniture and fixtures, and other equipment in form designed to serve as a basis for insurance calculations and to secure proper depreciation calculation under current tax laws.

The Creditors' Record is a cross-index file of vouchers paid each creditor (if a voucher system is maintained) or a detailed record of all transactions in the accounts payable ledger.

The Royalty Records give a detailed account for each author showing balances due to or by him by reason of advances, sales of his books, and amounts paid him. These permit periodical reports to authors.

The Payroll Records contain statistics required to conform with present social security taxes and wage and hour bills and to prepare statements required under the law to government sources and employees. In addition, most houses have a record of changes of compensation and assignments of individual employees.

Entries to these records are made in the usual manner adopted in acceptable accounting systems. Some books are peculiar to the industry, particularly the inventory and royalty records. At least three inventory records are maintained: those for paper stock, bound book stock, and books still in sheet form. In addition, a cost analysis is built up of all books in process. As a general rule, the postings to the bound book inventory records from detailed sales records or shipments form the balance for a monthly calculation of the cost of sales and the ascertainment of the amount due each author for royalties. The use of paper stock is journalized from the paper inventory to the work in process inventories from reports of consumption obtained from printers. When all other costs are assembled in the work in process ledger, there is created a cost of books printed in sheets. This cost, together with that of binding the book (accumulated in the sheet stock ledger) is the basis for a transfer to the bound book inventories. Journals are also used to make postings of returns and allowances for the month, the aggregate of complimentary copies, inventory discrepancies, and other losses which may arise in the postings to or the check of inventories.

ACCOUNTING FOR BOOKSTORES

By

STANLEY P. HUNNEWELL *

BRIEF DESCRIPTON OF BUSINESS

Booksellers are engaged primarily in the sale of books but frequently carry stocks of other merchandise in addition, such as stationery and greeting cards. Many bookstores also have a rental library for book borrowers.

The two principal types of bookstores are: the general bookstore with current fiction and nonfiction; and the specialist in textbooks, used books, or old and rare and fine bindings, or combinations of these groups. Others, who may carry very little stock on hand for the individual's purchase, sell chiefly to schools and libraries and by mail order.

The bookseller usually buys his books either directly from the publisher or from wholesalers or jobbers. There is no standard trade discount granted by publishers, the variation being from about 33⅓ to 40 per cent, or more, depending upon the particular circumstances, cost of handling, and nature and size of the order. The majority of trade-book publishers allow a 2 per cent cash discount 10 days E.O.M. or from 30 to 60 days net. There is neither uniformity nor a generally accepted trade practice in regard to terms.

As a general trade practice, the use of consignments or "on sale" arrangements has largely been restricted to displays and special promotional campaigns. Some publishers use a so-called agency contract, which in effect is similar to consignment, in that it provides for the return of a specified percentage of unsold stock, and the payment for sold stock at a specified trade discount. None of these "protection" plans is, however, a generally accepted trade mechanism for stocking a bookstore.

Several large chain bookstores and rental libraries are now in

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operation. In recent years there has been an increasing trend toward concentration of book sales in large units. On the other hand, the small, personalized bookshop which has made a name for itself in its community is a very vital factor in the promotion of book reading and book buying.

Because of the wide variety of bookstores, and differences in buying and selling methods, in classes of merchandise and in operating problems, it is not feasible to set up, at least within the limits of this article, an accounting system that will be flexible enough to embrace all types of stores and all special requirements. Large stores usually employ expert bookkeepers and can afford the services of outside accountants. The small store, doing a business of less than $50,000.00 per year—the one-man shop—is frequently in greater need of advice about accounting systems and operating problems.

Theory of Accounts

In the general bookstore, the major portion of the assets, shop space, sales efforts, and expenses is allocated to the book department, and therefore, accounting theory must be applied primarily to, and accounting practice devised for, that department of the business. Inasmuch as merchandise other than books is usually sold in a general bookstore, the accounting system must also provide for the proper segregation of inventory, sales, cost of sales, and expenses by departments so that management may exercise suitable control over profit and loss results in each department. The relative volume of business in each class of merchandise will determine the degree of such segregation.

In general, the accounting system should reflect the assets and liabilities of the business, simply and accurately, and should present the operating results in terms of the following major functions and departments: (1) purchase of merchandise, (2) advertising and promoting sales, (3) sales, (4) shipping and billing, (5) collection of accounts, (6) occupancy, and (7) administration.

Also, the system must make it possible accurately to compute cost of goods sold, hence, gross profit; and must provide sufficient statistical data to enable management to analyze the costs of each function and exercise adequate control over costs and expenses.

A third consideration is that the accounting records be so de-

signed that information is readily available in the form in which it will be required by banks, credit agencies, and tax authorities.

In large stores, in which there is more than one major department, such as books, stationery, cards, and gifts, certain operating expenses are usually prorated over the several departments on some accurate "service" or "space-occupied" basis; general office expense, administration, light and heat, and rent fall into that category.

Accounts Required

In order to conform with these basic accounting requirements certain fundamental accounts must be set up. For convenience as posting references and for orderly reports it is helpful to number the accounts in series and to segregate them accordingly in the general ledger in the order in which they will be listed on the balance sheet and operating statements as follows:

Asset Accounts
Current Assets (1 to 20)
- Cash in Bank
- Petty Cash
- Accounts Receivable
- Notes Receivable
- Reserve for Bad Accounts
- Marketable Investments
- Merchandise Inventory
- Rental Library Stock

Fixed and Other Assets (20 to 30)
- Land
- Buildings
- Furniture and Fixtures
- Depreciation Reserve
- Unexpired Insurance
- (and other deferred assets)

II. Liability Accounts
Current Liabilities (100 to 110)
- Accounts Payable
- Notes Payable
- Rental Library Desposits
- Accrued Taxes (state, Federal)
- Accrued Sales Taxes
- Other Accrued Liabilities

Deferred Liabilities (110 to 120)
- Mortgages

III. Capital Accounts (120 to 130)
- Capital Stock (or Invested Capital)
- Surplus
- Undivided Profits
- Profit and Loss

IV. Operating Accounts
Income (200 to 210)
- Sales (departmentalized)
- Returns
- Library Rentals
- Library (rental) sales

Expense (210 to —)
- Cost of Sales
- Cost of Rental Library Sales
- Salaries—Owners or Officers
- Salaries—Employees
- Payroll Taxes
- Advertising
- Rent
- Light
- Heat
- Telephone and Telegraph

Office Supplies and Postage
Freight, Express, and Postage (Incoming)
Postage, etc. (Outgoing)
Wrapping Expense
Delivery Expense
Insurance
Depreciation on Equipment
Bad Debts

Balance Sheet

The balance sheet accounts normally required are listed in the previous section. It will be noted that they are listed in such order as to bring together on the Balance Sheet the following groupings:

Quick Assets: Cash and Accounts Receivable
Current Assets: Quick Assets plus Inventory
Other Assets
Current Liabilities
Long-term Liabilities
Net Worth

The following is a condensed list of the major accounts, in balance sheet form, of a small or medium-sized bookstore:

Assets	Liabilities and Capital
Cash on Hand and in Bank	Accounts Payable—Merchandise
Accounts Receivable (less Bad Debt Reserve)	Accounts Payable—Other
Inventory (Owned)	Notes Payable—Banks
Furniture and Fixtures (less Depreciation Reserve)	Notes Payable—Other
Other Assets (itemize)	Accrued Liabilities
Prepaid Expense	Mortgages
	Notes to Proprietors or Officers
	Capital Loans (long term)
	Invested Capital
	Surplus

The titles of some of the balance sheet accounts are self-explanatory, but others require clarification so that their significance may be clearly understood, and so that statements furnished to credit agencies, individual creditors, and banks may be correctly interpreted and evaluated.

Accounts Receivable

An adequate reserve must be set up on the basis of past collection experience, so that the net amount shown on the balance sheet for this account is no more than can reasonably be expected to be fully collectible.

Inventory

This figure should be based on an actual physical inventory taken at cost, and then depreciated to a fair market value. If it is ever necessary to furnish a statement as of a date other than the date

of a physical inventory, the inventory should be carefully estimated on the basis of average cost of sales, and that estimate clearly explained on the statement.

In a bookstore, as in most retail businesses, the determination of true operating profit depends largely upon the accuracy with which the inventory is taken, priced, and evaluated. Bookstores generally use the "lower of cost or market" method; in other words, inventory is taken item by item or by related groups, priced at cost, and then depreciated to current market value. To accomplish an accurate and conservative result, a bookstore inventory must first be grouped as follows:

- Fiction
- Nonfiction
- Art, drama, music
- Staple items—bibles, dictionaries, reference books
- Technical
- Used books
- Old and rare
- Fine bindings, sets, etc.
- Rental library

In addition to the above, other classifications which are necessary to segregate books having a similar turnover and life span are also made.

When the main groups have been segregated in the inventory, the books in each group should then be aged according to the periods of time during which the bookseller believes the books will have an active or constant sale. For example, the demand for current fiction is rarely active beyond the first six months, except for outstanding best sellers; after that period the sales curve drops very rapidly, if it has not already disappeared. Hence, the fiction inventory should be divided into such time-groups as will reflect the relative activity of sales and stock turnover. Fiction that sells actively six months after acquisition can safely be valued at cost without depreciation, but fiction whose sales have stopped, whether the books be one month, three months, or six months old, should be depreciated very rapidly after six months, so that in not more than one year after acquisition they are inventoried at no more than can be realized in a bargain sale.

For nonfiction and the other groups mentioned above, the period during which books may safely be inventoried at cost will usually be longer than for current fiction; the principle, however, is the same, namely, that depreciation theoretically starts when sales demand begins to fall off.

When the inventory has been aged and priced at cost, the depreciation rate is then figured and subtracted from cost to determine the final value. There is no standard rate of depreciation; the variations in practice are wide and rates must be determined by individual conditions. Generally speaking, fiction should be depreciated at least 50 per cent as soon as sales demand stops, whether it be in one month or six months after publication. One large bookseller, with several metropolitan stores, depreciates fiction at the rate of 20 per cent per month.

Consignment Inventory

Merchandise held on consignment, on sale, or under an agency contract, should not be included with owned inventory, for the obvious reason that it is the property of the consignor until sold. It must be treated as a separate account and regularly reported as required by the contracts (usually every 30 or 60 days). The value of the consignment stock (unsold) is sometimes listed among the assets, but in that case a contra liability account must be shown; it is preferable to omit it from the statement proper and show the amount in an explanatory note. Problems sometimes arise in the handling of and accounting of consignment stock and it is important to emphasize a legal and accounting "must" which is too generally overlooked—a sale of consignment merchandise, either for cash or as an account receivable, is legally a trust fund for the payment of a specific contract and that portion of the sale price which represents the cost of the merchandise should promptly be set up as an account payable and shown separately on the books as Accounts Payable—Consignments Sold. The equivalent *in cash* should be segregated in a separate account and not mixed with the general Cash account. There are definite reasons for this safeguard, which serves as a protection both to the supplier and to the bookseller.

Unfortunately, the above ideal method of accounting for consignments is not generally observed in practice. Accountants should therefore stress its importance when setting up accounting systems or making audits for booksellers. So long as a bookstore is in a liquid position and able to pay its bills promptly, the observance of the rule is largely an academic question, but complications always arise when the bookseller is in financial difficulties and is forced to

seek relief from creditors, either in the form of an extension or moratorium or of a compromise settlement. Then, failure properly to segregate and account for consignments frequently interferes with the general acceptance of a plan on the part of creditors, and may prevent the consignor from recovering his merchandise and from establishing and collecting his preferred claim.

Other Assets

Some of the items included under this heading are real estate, automobile (if any are owned by the business), and advances to officers and employees. These advances should *not* be included with customers' accounts receivable, and should be separately stated on the balance sheet.

Accounts Payable should include only accounts payable to suppliers.

Notes Payable to the Trade should be shown separately and not included with accounts payable.

Notes Payable—Banks and Individuals should specify whether the notes are secured or unsecured. If secured by any of the assets of the bookstore, it should be so stated and the assets described.

Security for Mortgage or Other Liens should also be described.

Surplus represents the accumulated earnings and undivided profits which have been reinvested in the business. Any net profit or loss from the fiscal year's operations should be shown as a separate item added to or deducted from the previous surplus to give the new surplus figure.

Operating Statement

In condensed form, the following is a specimen operating statement:

1. Sales (less returns from customers)
2. Inventory beginning of period
3. Plus purchases during period
4. Plus freight, express—incoming
5. Total 2, 3, and 4
6. Minus inventory end of period
7. Cost of merchandise sold (deduct 6 from 5)
8. Gross Profit (deduct 7 from 1)
9. Plus Rental Library Income
   Other Income
10. Total Gross Income

11. Operating Expenses:
    - Owners' or Officers' salaries or drawings
    - All other salaries
    - Rent
    - Light and heat
    - Advertising
    - Wrapping and delivery
    - Postage (outgoing)
    - Insurance
    - Interest
    - Taxes
    - Other expenses (itemize major accounts)
12. Total Expenses
13. Net Profit (deduct 12 from 10)

Operating Ratios

Inasmuch as gross profit margins in bookstores, even under favorable conditions, are not large, it is particularly important to recognize certain operating ratios and to make them conform as nearly as possible to standards which are generally accepted by the industry. The Book Publishers Bureau and its predecessor, The National Association of Book Publishers, have had an opportunity to study and analyze financial statements of hundreds of bookstores during the past ten years; these studies have provided reliable figures of average performance and they agree quite closely with the results of retail bookstore surveys made by Dun & Bradstreet, Inc., for 1936 and 1939.

The three most important ratios which usually represent the three largest single expense items are as follows:

1. *Total Payroll to Sales*—In figuring this ratio the salaries of officers or the drawings of owners or partners should be included with the total wages of employees. This ratio should not exceed 13 to 14 per cent. It has also been found that this total payroll expense should not exceed 40 to 50 per cent of gross profit. A special analysis of several large bookstores, showing a net profit, where there are both officers and employees, shows that the total payroll was about 14 per cent of sales, distributed as follows: 2.5 per cent to 3.3 per cent to officers and 11.8 per cent to 11.0 per cent to employees.

2. *Rent to Sales*—This ratio of rent to sales will naturally vary with local real estate conditions and may not be controllable except at the renewal of the lease. Normally the bookstore cannot afford to allow more than from 6 to 8 per cent of sales for rent.

3. *Advertising to Sales*—The allowance for this item will depend upon the type of advertising which best serves the individual business, but rarely should exceed 2 per cent of sales.

The above ratios are not absolute, because they represent the average performance of hundreds of profitable bookstores. Local conditions and needs may dictate variations but if the top limits of the above ratios are in effect the bookstore is spending 24 per cent of sales for these three items alone out of a probable gross profit of 35 per cent

Budgets

It is suggested that every bookstore, however small, prepare the following budgets for management control: (1) operating expense budget, (2) purchase budget, and (3) cash forecast.

Bookkeeping Methods

The following accounting records, or adaptations of them, will usually suffice to meet the needs of a simple yet complete system:

1. Journal
2. General ledger
3. Cash disbursements or check register
4. Cash receipts
5. Voucher register
6. Sales record
7. Purchases record

The extent of elaboration or columnar distribution will depend upon the number of accounts and the degree of breakdown of costs which may be required. In small bookstores some of the records may be combined. In large stores they may be subdivided and expanded for convenience and economy in classification and posting. One large bookstore with a very complete system carries the following records, in addition to the journal and general ledger:

1. Distribution of daily receipts and sales
2. Bank account record
3. Check record
4. Accounts receivable (a ledger card or page for each charge customer)
5. Distribution of purchase ledger
6. Library deposits (card for each member)
7. Petty cash report
8. Summary journal
9. Balance sheet and profit and loss statement record

ACCOUNTING FOR BREWERIES

By
CHARLES WEISSINGER *

BRIEF DESCRIPTION OF BUSINESS

Breweries are engaged in the manufacture of beer and ale; grains and spent hops are their by-products. Grains make good fodder but spent hops are of little use except for fertilizer. Beer and ale are brewed from malt and hops; sometimes other cereals, such as maize and rice are also used. The chief differences between beer and ale are attributable to the difference in proportions of materials used and in the method of fermentation.

Generally there are two departments. The brewery manufactures the products, sells to customers in quarters, halves, and whole barrels, and supplies the bottlery through a pipe line with the part of the products which it requires. The bottlery bottles some and cans the remainder, and distributes the output in these smaller containers.

The beer and ale are sold to small distributors, taprooms, dining cars, licensed restaurants, and hotels. All brewers have their own plants. They are closely supervised by the United States Department of Internal Revenue and its subdivisions, as to the quantities of materials used, the volume and distribution of the products, and the conduct of the business generally.

In some states the brewers are by law confined to a cash business. In most states credit may be extended at will.

The organization chart below indicates the manner in which a typical brewery is organized.

THEORY OF ACCOUNTS

The orthodox theory forms the basis of the system of accounts, but since the Federal and the state governments take approximately 50 per cent of the selling price in stamp and other taxes, the costs

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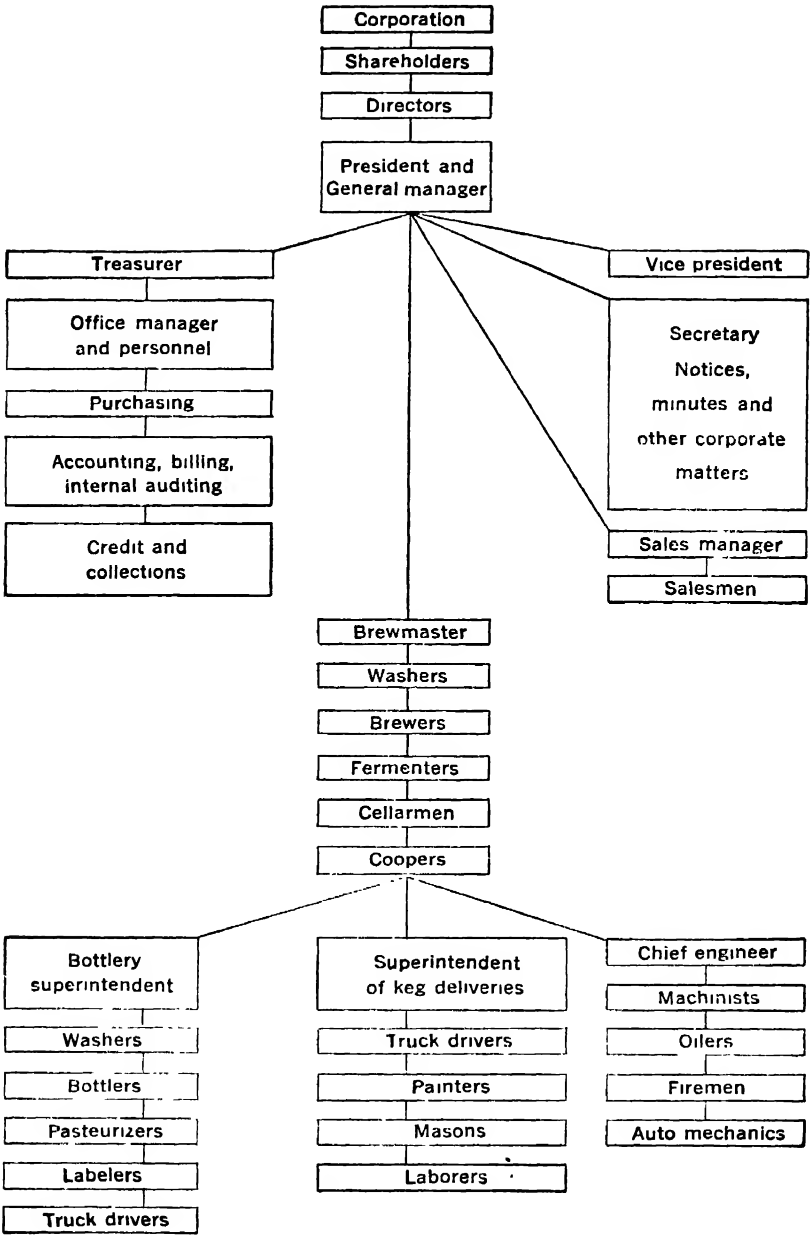
BREWERY ORGANIZATION CHART



in the aggregate and in units for the keg department and for the bottling and canning department must be closely watched. This vigilance is all the more important since brewing is a seasonal business; the costs per unit rise in cold weather because of a small volume and fall in warm weather when volume is greater. It is therefore customary to get monthly statements of: (1) assets and liabilities, (2) brewery manufacturing, trading and profit and loss, and (3) bottlery trading and profit and loss. Distance from customers affects the delivery costs; some brewers do a national business and others confine themselves to the local market.

In general it is necessary to know monthly: (1) the beer sales to customers, less discounts and allowances, (2) the production costs, (3) selling and delivery costs, and (4) administration and maintenance costs for the brewery and also for the bottlery. These main divisions of information are analyzed currently in as great detail as requirements dictate.

The bottling department is charged at cost for the beer delivered to it. The accounts are arranged so that expenses are charged to the brewery or the bottlery, as the case requires. Some items cannot be equitably separated, in which case a division between the departments is made, based on the volume of business done by each. Some breweries arrive at the gain to the point where the direct charges end. The gain to this point of the brewery and the bottlery are added together. From this sum they deduct the total of the items which could not be apportioned.

Accounting for containers has always been a problem. After trying many novel schemes, the practice of charging for them in a separate column in the accounts receivable ledger at a standard price (less than they actually cost) and providing an extra column in the accounts receivable ledger to receive the credit for returns has proved the best plan yet devised. In this way, one can always tell how much a customer owes for containers and how much for beer. The sum of the charges for containers is credited to Deposits on Kegs, or Deposits on Boxes and Bottles, as the case may be. The sum of the charges for beer is, of course, credited to Sales.

Two methods of obtaining costs in a brewery are in general use. One is to charge each brew with the materials and direct labor expended on it and follow it through the various processes. This method requires much clerical work and adds to the expense of

ascertaining costs. The procedure in more general use is to obtain average costs monthly. This can easily be done because the process is continuous and the kinds of product few. The number of barrels brewed, after allowing for wastage, is divided into the month's total cost of production to arrive at the average cost of production per barrel. The number of barrels delivered is also divided into the total cost of delivery, as is the number of barrels sold into the total selling costs. Average costs are thus obtained which can be adjusted at any point to conform to some special requirement.

In the bottlery a different unit is used. It may be cases of two dozen bottles, or a dozen bottles, or a dozen cans. These costs in dollars and cents with the cents carried out to two extra decimals have proved very satisfactory for all practical purposes and the cost of obtaining them is comparatively insignificant. The costs can by this method be carried out in the greatest detail. Occasionally adjustment is necessary. For example, a number of men may be engaged for a short time in special work. In this case, a separate record of time and wages is kept and the proper adjustment made in the general records.

For managerial and statistical purposes these average costs have been quite helpful. If costs in a specific case are desired, adjustments must be made. For example, in one case a distributor will call at the platform for his beer and in another a long haul may have to be made. In the former, the delivery costs should be eliminated and in the latter they should be increased. In some instances the sales costs are high and in others nil; in the former the cost of sales must be increased and in the latter the sales costs must be decreased or even eliminated.

Accounts Required

A suggested designation by symbols for the accounts is as follows:

Numbers	*Will Designate*
1–55	Assets and deferred charges
56–65	Liabilities, accrued items, reserves, capital
101	Brewery sales
102–150	Brewery expenses
201	Bottlery sales
202–237	Bottlery expenses

These symbols can be modified to suit preferences and different conditions.

EXPENSE CLASSIFICATION

	Brewery			*Bottlery*		
	Production	Selling and delivery	General expense	Production	Selling and delivery	General expense
1. Advertising—Bottlery					230	
2. Advertising expense—Brewery		143				
3. Bad debts—Bottlery						233
4. Bad debts—Brewery			146			
5. Bottles consumed				206		
6. Bottling supplies consumed				209		
7. Boxes consumed				207		
8. Brewery buildings—repairs	120					
9. Brewery machinery—repairs	121					
10. Brewing materials other—used	106					
11. Brewing supplies—used	107					
12. Cereals—used	105					
13. Depreciation bottlery building and machinery				214		
14. Depreciation brewery and machinery	115					
15. Depreciation furniture and fixtures office—Bottlery						237
16 Depreciation furniture and fixtures office—Brewery			150			
17. Depreciation motor truck—Bottlery					227	
18. Depreciation motor truck—Brewery		140				
19. Discounts and allowances on case beer					202	
20. Discounts and allowances on keg beer		102				
21. Donations—Bottlery						234
22. Donations—Brewery			147			
23. Engine room supplies—used	114					
24. Freight and storage—Bottlery					226	
25. Freight, hauling and demurrage—Brewery		139				
26. Fuel used	112					
27. Garage expense—Bottlery					222	
28. Garage expense—Brewery		134				
29. Garage supplies trucks—Bottlery					221	
30. Garage supplies trucks—Brewery		133				
31. General expenses—Bottlery						235
32. General expenses—Brewery			148			
33. Hops—used	104					

34. Insurance—Bottlery				213		
35. Insurance—Brewery	125					
36. Interest on brewery mortgage payable	122					
37. Interest paid (excluding mortgage interest)—Bottlery						236
38. Interest paid (excluding mortgage interest)—Brewery			149			
39. Kegs consumed		138				
40. Licenses	123					
41. Licenses motor trucks—Bottlery					225	
42. Licenses motor trucks—Brewery		137				
43. Machinery repairs—Bottlery				211		
44. Malt used	103					
45. Motor truck fuel and lubricants—Bottlery					219	
46. Motor truck fuel and lubricants—Brewery		131				
47. Motor truck insurance—Bottlery					220	
48. Motor truck insurance—Brewery		132				
49. Motor truck maintenance—Bottlery					218	
50. Motor truck maintenance—Brewery		130				
51. Purchases from brewery at cost				203		
52. Salaries office—Bottlery						231
53. Salaries office—Brewery			144			
54. Sales of grain	108					
55. Salesmen's wages and commissions—Bottlery					217	
56. Salesmen's wages and commissions—Brewery		129				
57. Selling expenses—Bottlery					216	
58. Selling expenses—Brewery		128				
59. Superintendents' salaries—Bottlery				204		
60. Superintendents' salaries—Brewery	109					
61. Taxes—Bottlery—Federal and state capital stock, corporate loans and bonus, social security: unemployment, Federal and state, and old age benefits. (Federal, state and city income taxes charged to Surplus).				212		
62. Taxes—Federal and State capital stock, corporate loans and bonus, social security: unemployment, Federal and						

state, and old age benefits. (Federal, state and city income taxes charged to Surplus).	124					
63. Tools	119					
64. U. S. Internal Revenue Stamps used	126					
65. Wages—Bottlery				205		
66. Wages—Brewery	110					
67. Wages drivers—Bottlery					224	
68. Wages drivers—Brewery		136				
69. Wages engineers and firemen	111					
70. Wages garage—Bottlery					223	
71. Wages garage—Brewery		135				
72. Wages watchman—Bottlery						232
73. Wages watchman—Brewery			145			
74. Water rent—Bottlery				210		
75. Water rent—Brewery	113					

Financial Statements

CONDENSED STATEMENT OF ASSETS AND LIABILITIES

Assets

Current assets

1	Cash
2	U.S. Internal Revenue Stamps on hand
3–4	Accounts receivable
5–13	Inventories Brewery
14–15	Inventories Bottlery
16	Loans and notes receivable
17	Investments

Fixed assets

18–25	Plant and equipment
26–27	Prepaid and accrued items

Liabilities

Current liabilities

50	Notes payable
51	Accounts payable
52–55	Accrued items

Other liabilities

56–57	Deposits on containers
58	Mortgages payable
59	Reserve for bad debts
60–63	Reserves for depreciation plants and equipment
64	Capital Stock
65	Surplus

CONDENSED STATEMENT OF MANUFACTURING, TRADING, AND PROFIT AND LOSS FOR THE BREWERY

101	Keg sales to customers
102	Discount and allowances on keg beer
	Net sales

Production	
103–107	Materials used
108	Less, grains sales
109–111	Salaries of brewery engineers and firemen, and prorata shares of salaries of managers
112–114	Fuel, water, and other supplies
115	Depreciation
119–121	Tools and repairs
122	Interest on brewery mortgages
123–125	Taxes, insurance, and licenses
126	U.S. and State Internal Revenue stamps
Total cost of production	
127	Less, cost of sales to bottlery
	Cost of keg sales to customers
	Gross profit on sales to customers
128–140	Selling, delivery
143–149	General expense
150	Depreciation furniture and fixtures office and office building
	Net profit

CONDENSED STATEMENT OF BOTTLING, TRADING, AND PROFIT AND LOSS FOR THE BOTTLERY

201	Case beer sales to customers
202	Discount and allowances on case beer
	Net sales
Production	
203	Cost of cereal beverage from the brewery
204–213	Bottling expense
214	Depreciation bottling building and machinery
	Total cost of production
	Gross profit on sales to customer
216–226	Selling and delivery
227	Depreciation—movable equipment
230–236	General expense
237	Depreciation furniture and fixtures office and office building
	Net profit

Bookkeeping Methods

In addition to the forms and books generally used in industry, those used in, and arranged to suit breweries are as follows:

The Payroll Book is arranged to take care of social security requirements and is arranged by groups—brewers, cellarmen, coopers, washers, firemen, machinists, engineers, oilers, laborers, truck drivers, etc.

Receipted Delivery Tickets form the base of the charges, and with mechanical bookkeeping the required summaries for the general ledger are automatically obtained. The details are charged to

the respective customers' accounts in the accounts receivable ledger.

Credit Slips are the reverse of the latter and need to be closely watched to prevent their abuse.

Journals of two kinds are needed: one of the usual type and the other with cut leaves to avoid writing the standard monthly entries more than once a year.

The Trial Balance contains cut leaves for monthly use.

The Brew Book begins with the quantities of materials and finished product carried forward from the previous month. In it are recorded dates, materials received, and the materials consumed in this month's production. A record is made of each brew and the dates on which it is made. The sales are recorded daily. When the totals are obtained, the book serves as a good perpetual inventory and record of goods in process. The brew book is the brewer's own record and is seldom audited by the government.

The Revenue Book—Materials contains much the same information about materials as the above but is arranged as the government requires and is audited by an inspector monthly.

Revenue stamps and beer is a book required by the government and is a record of stamps and beer on hand at the beginning of the month to which are added the beer produced and stamps purchased. The sales are recorded in units daily and the total for the month is deducted from the sum of the amounts on hand at the beginning plus additions during the month. The various balances are then carried forward to the next month. This book is audited monthly by an inspector of the government.

The beer dispensed through the bottlery tank is under the constant supervision of the government inspectors, who—upon request—open the intake and seal the outlet so that the tank can be filled, and then open the outlet and seal the intake so that the contents can be bottled. These operations are also contained in the records mentioned above.

ACCOUNTING FOR BUILDING CONTRACTORS

By

LEONARD LEVINE *

BRIEF DESCRIPTION OF BUSINESS

A definite relationship exists between the owner of land and the building contractor. It is general practice for the building contractor to do the construction work, which consists of the erection of residences, apartment houses, office buildings, churches, colleges, theatres, stores, etc.

An owner of land desiring to have a building erected thereon, and having the necessary funds, negotiates with a building contractor for its construction. The landowner usually first consults an architect regarding the plans and specifications of the proposed building. If rent is to be the primary income, the architect will study the proposed project and so design the building as to secure the maximum rental income for his client. When the architect and the owner have agreed on the plans they are given to the building contractor who then submits his bid, after estimating the costs of construction plus his anticipated profit. The final preliminary step is the signing of the contract between the landowner and the building contractor.

Several types of construction contracts are used, the three principal ones being:

Lump-Sum Contract—In a lump-sum contract the contractor agrees to perform certain work subject to the approval of the architect for which he is to be paid a lump sum or a specific price. The profit to the contractor will be the excess of the sum received over his payments for labor, material, subcontracts, etc.

Cost-Plus Contract—This contract calls for the payment by the realty owner of the cost of construction plus the contractor's fees, which may be a fixed sum or a percentage of the costs.

Unit-Price Contract—Under this type of contract, individual

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unit prices are paid by the owner of the land to the contractor as the unit of work is performed. The total of these prices will be the ultimate contract price received by the contractor.

After the bid has been accepted and the contract price established, the contractor's operations begin. Contractors generally do not complete the entire construction job themselves. Invariably they allot subcontracts to various companies who are skilled in and organized for a specialized type of work.

Theory of Accounts

The length of time spent in the construction of a building is usually a year or less. However, there are instances since skyscrapers have come into vogue of building construction covering a period of more than one year. Two general methods of accounting for long-term contracts are employed under the income tax laws in effect.

1. The entire profit or loss is reported in the year of completion of the contract. Income is considered earned at the date of completion, not at the date the final payment is received.

2. The percentage of the contract completed during the year is applied to the total profit or loss expected, and may be reported in the taxable year. If, for tax purposes, the income is to be reported on contracts in process, which this method entails, an architect's or engineer's certificate stating the percentage of completion must accompany the tax return. With regard to deductions from the gross income, cognizance must be taken of opening and closing inventories.

From an accountant's point of view, the reporting of income on the completed contract is the most conservative method; but a decided disadvantage of this method is that frequently distorted annual income figures result. Consequently, comparison with other years is impossible, and tax results may be distinctly inequitable.

The reporting of income according to the percentage of the contract completed is more logical and permits the presentation of true operating results. However, this method has two disadvantages. First, the necessity of keeping accurate interim detailed cost figures of each job by the contractor involves additional expense. This additional cost is frequently considered, however, to be more

than outweighed by the managerial benefits secured. Second, unforeseen complications arising during the completion of the unfinished contract may erase profits reported in the previous periods.

Jobbing Work

Instead of handling new construction work, a building contractor may do jobbing work on buildings that have already been constructed. By jobbing work we mean repairs and alterations to old buildings. However, unless the repair or alteration work to be done is of a considerable amount, the building contractor generally leaves this field of endeavor to those firms that specialize in it.

Accounts Required

The accounts required for a construction company vary with the different types of construction jobs undertaken. The one guiding principle for all construction projects is that costs must be known as accurately and expeditiously as possible.

The building contractor in submitting a bid for construction work must ascertain the quantities of building materials, labor costs, and units of work to the minutest degree. Using this as a basis, a job cost system would be applicable in determining the development of costs of the various units.

Construction Costs—The costs of all material, equipment, labor, and any other expense directly allocatable to the construction of the building are to be recorded in the construction account. This account will show a detailed analysis of each step in the construction. For example, during excavation, the cost of any equipment, rental of machinery, and the labor charges will be recorded. These specific expenses are charged to excavation—one of the numerous subdivisions of the control account of construction.

Labor Costs—One of the most important elements in construction costs is labor. Knowledge of labor costs for each unit will assist the contractor to prepare bids intelligently for future contracts. The necessary information for the distribution of labor costs to the various units originates from a foreman's or timekeeper's daily report, which describes in detail the work being done by each man, the number of men employed, and the hours worked.

Material Costs—The cost of material charged to the unit arises

from direct purchase for the specific unit or from materials requisitioned from stock.

Classification of Accounts

A classification of accounts represents an orderly arrangement of co-related accounts. In building and construction companies each account may have a specific code number easily recognizable for the allocation of costs to units under construction.

Code Numbers:

- 200 Excavation
  - 201 Labor
  - 202 Fuel
  - 203 Payroll Taxes
  - 204 Rental of Machinery
  - 205 Insurance—Liability, Fire, etc.
  - 206 Trucking Expense
  - 207 Depreciation
  - 208 Repairs and Maintenance of Machinery
- 225 Stones and Cementing
  - 226 Material
  - 227 Labor
  - 228 Payroll Taxes
  - 229 Rental of Machinery
  - 230 Insurance
    - a. Fire
    - b. Theft
    - c. Liability
    - d. Compensation
- 225 Exterior Millwork
  - 251 Material
    - a. Lumber
- 275 Interior Millwork
- 300 Stone Masonry
- 325 Brick Masonry
- 350 Lathing
- 375 Structural Steel
- 400 Reinforcing Steel
- 425 Roofing
- 450 Sheet Metal
- 475 Subcontracts
  - a. Carpentry
  - b. Plastering
  - c. Plumbing
  - d. Steel Sash
  - e. Glass and Glazing
  - f. Heating
  - g. Electrical Work
  - h. Painting

i. Roofing
j. Tile and Mosaic
k. Marble
l. Brass and Bronze
m. Elevator
n. Sewage
o. Water

500 General Overhead
- 501 Engineering
  - a. Architect
  - b. Engineers
  - c. Attorneys
  - d. Photographers
  - e. Draftsmen
- 502 Selling Costs
  - a. Rent
  - b. Brokerage Fees
  - c. Commissions
  - d. Advertising
  - e. Traveling Expenses
  - f. Salesmen's Salaries
  - g. Payroll Taxes
  - h. Miscellaneous Selling Expenses
  - i. Telephone
  - j. Losses on Bad Accounts
- 503 General and Administrative Expenses
  - a. Officers' Salaries
  - b. Office Salaries
  - c. Traveling Expenses—General
  - d. Premium—Employees' Bonds
  - e. Insurance
  - f. Depreciation—Office Furniture and Fixtures
  - g. Association Dues
  - h. Subscriptions
  - i. Accounting Fees
  - j. Legal Fees
  - k. Interest Payable
  - l. Taxes
  - m. Directors' Fees
  - n. Postage
  - o. Stationery and Printing
  - p. Office Supplies
  - q. Rent—General
  - r. Towel Service
  - s. Watchmen
  - t. Temporary Structures
    - 1. Stairs
    - 2. Toolhouse
    - 3. Sheds
  - u. Bond and Interest Mortgage Paid

In each classification of accounts, breakdowns of material, labor, and direct expenses should be included. Thus, knowledge of the specific cost on every type of work may be acquired.

Balance Sheet

A typical balance sheet of a building contractor follows:

ASSETS

Current Assets
- Cash in Banks:
  - Bank A
  - Bank B
- Petty Cash—Office
- Petty Cash—Job
- Notes Receivable
- Accounts Receivable
- Interest Receivable
- Advances to Salesmen
- Marketable Securities
- Unbilled Costs
  - Unfinished Contract Costs (contra)
- Construction Costs—Overadvanced
- Deposits on Bids
- Inventories—Storeroom Materials and Supplies
  - Total Current Assets
  - Total Assets

Investments
- Mortgages Receivable
- Investment in Subsidiary Companies
- Association Securities
- Bonds
- Sinking Fund
  - Total Investments

Deferred Charges
- Unexpired Insurance
- Stationery and Supplies on Hand
- Prepaid Interest
- Prepaid Taxes
- Other Prepayments
  - Total Deferred Charges

Fixed Assets
- Office Furniture and Fixtures
  - Less Reserve for Depreciation
- Construction Equipment and Supplies
  - Less Reserve for Depreciation
- Delivery Equipment
  - Less Reserve for Depreciation
- Patents

Patterns and Drawings
Small Tools Equipment
Goodwill
Total Fixed Assets

LIABILITIES AND CAPITAL

CURRENT LIABILITIES
Notes Payable
Accounts Payable
Accrued Expenses Payable
Dividends Payable—Common Stock
Dividends Payable—Preferred Stock
Subcontract Liability (contra)
Reserve for Taxes
Reserve for Federal Income Taxes
Reserve for Insurance
Total Current Liabilities
FIXED LIABILITIES
Long-Term Notes Payable
Bonds Payable
Total Fixed Liabilities
RESERVES
Reserve for Special Commissions
Reserve for Contingencies
Total Reserves
SURPLUS RESERVES
Reserve for Contingencies
Sinking Fund Reserve
Total
TOTAL LIABILITIES AND CAPITAL
CAPITAL
Preferred Stock—Issued and Outstanding
Common Stock—Issued and Outstanding
Capital Surplus
Paid in Surplus
Earned Surplus
Profit and Loss
Total Capital

OPERATING STATEMENTS

The income statement for a contractor on a completed contract basis is illustrated below:

PROFIT AND LOSS STATEMENT

INCOME FROM COMPLETED CONTRACTS
LESS DIRECT COSTS ON COMPLETED CONTRACTS
Labor
Material
Overhead
Outside Contracts

Gross Profit On Completed Contracts
Income From Completed Jobbing Work
Less Direct Costs On Jobbing Work
- Labor
- Material
- Overhead
- Outside Contracts

Gross Profit On Jobbing Work
Total Gross Profit
General Overhead
- Engineering:
  - Architects' Fees
  - Salaries—Engineer
  - Attorney's Fees
  - Salaries—Draftsmen
  - Photographers
  - Payroll Taxes
  - Traveling Expenses
  - Miscellaneous Supplies
- Selling Costs:
  - Rent
  - Brokerage Fees
  - Commissions
  - Advertising
  - Traveling Expenses
  - Salesmen's Salaries
  - Telephone
  - Losses on Bad Accounts
  - Miscellaneous
  - Insurance
  - Depreciation
- General and Administrative Expenses:
  - Officers' Salaries
  - Office Salaries
  - Traveling Expenses—General
  - Premium—Employees' Bonds
  - Insurance
  - Depreciation—Office Furniture and Fixtures
  - Association Dues
  - Subscriptions
  - Accounting Fees
  - Legal Fees
  - Interest Payable
  - Taxes
  - Directors' Fees
  - Postage
  - Stationery and Printing
  - Office Supplies
  - Rent—General
  - Towel Service

Sundry Expense
Bond and Mortgage Interest Paid
Total General Overhead
NET OPERATING PROFIT
ADD MISCELLANEOUS INCOME
Interest
Purchase Discounts
Miscellaneous
NET PROFIT FOR THE PERIOD

Items worthy of comment appearing on the balance sheet and profit and loss statement are:

Inventories—Storeroom Materials and Supplies—The inventory of a building contractor consists of the necessary materials and supplies to be used in the various phases of construction.

Unfinished Contract Costs—Unfinished contracts sublet to subcontractors are shown as an asset and the offsetting credit is shown as a subcontractors' liability.

Incompleted Contracts—If the income is to be reported on the incompleted contract basis at the end of the taxable year, the following will be added to the gross profit section:

Income from Contracts in Process
Less Direct Costs on Contracts in Process
Labor
Material
Overhead
Gross Profit on Contracts in Process

BOOKKEEPING METHODS

The records for building contractors posted from the books of original entry generally include the following:

The General Ledger is a control for all subsidiary ledgers and also includes the assets, liabilities, capital, and surplus accounts as well as income and expense accounts.

The Investor's (Owner's) Contract Ledger contains the records of the various contracts for construction work for realty owners. These accounts are charged with the various contract prices and credited with payments made to the construction company by the owners.

The Subcontractor's Ledger is a control of all subcontracts. The

cost of all contracts issued to subcontractors and the payments made are posted to this ledger.

The Accounts Receivable Ledger represents monies advanced to employees, or amounts due from debtors for miscellaneous supplies or equipment sold, since there are no ordinary accounts receivable for merchandise sold.

The Inventory Ledger records in detail all supplies and materials on hand. The records are kept in the form of a perpetual inventory, showing quantities, description, and amount.

The Equipment Ledger is a register for all equipment. A perpetual inventory is kept because of the large number of pieces of equipment. A physical inventory of the equipment should be made periodically. This record also serves as a basis for securing the necessary information for depreciation and insurance.

The Accounts Payable Ledger is a detailed record of transactions with creditors.

The Payroll Record is a statistical record of information which conforms with the social security and minimum wage laws. This record includes detailed time sheets for all employees, disclosing time, place, and type of work done on each unit of construction, which are used for the allocation of costs to the various jobs.

The books of original entry include those for cash receipts, cash disbursements, voucher register, general journal and petty cash.

ACCOUNTING FOR BUILDING MANAGEMENT

By

LEONARD LEVINE *

Accounting for "Real Estate" may be classified into three major categories, namely, building management, land accounts, and building and construction. In this chapter, the discussion will be limited to building management, the most active branch of real estate accounting.

BRIEF DESCRIPTION OF BUSINESS

In building management, the realtor may manage his own property or deal in or with real estate on behalf of others. The compensation received by a realtor, acting as an agent, is either a fixed fee or a percentage of the rental income.

As an agent, the realtor is generally in charge of collecting rents, arranging leases, and supervising the distribution of any monies necessary to the upkeep of the building. He tries to obtain the highest rental possible, while keeping expenses at a minimum.

The kinds of property managed by a realtor owner include apartment houses, office buildings, store buildings, clubs, hotels, etc. The source or type of income received varies according to the property managed. The chief source of income from commercial properties, loft, and office buildings and apartment houses is the rental income received for space, whereas the income from clubs is derived chiefly from dues, initiation fees and other miscellaneous charges.

THEORY OF ACCOUNTS

The agent realtor should segregate the records of each of the various properties which he manages. He serves as trustee for his clients funds and should, therefore, see that those funds are not commingled with his own. The most common method used is to

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have a separate or special bank account for each client, in which all income is deposited and from which all expenses incurred on behalf of the client are disbursed.

The agent realtor usually submits monthly reports to his clients giving a detailed analysis of income and expenditures, and sends a check for the monthly balance due.

In managing his own property, the realtor is interested primarily in a detailed analysis of all income and expense accounts. Use of an operating budget is often good practice, if it is strictly adhered to. The allocation of definite sums for the various operations will act as a brake on excessive expenses. Estimates of income and charges should be based on experience of previous years.

Two accounts, namely, Rental Income and Allowances for Vacancies and Concessions, are worthy of comment.

Rental Income

When the business is operated on a cash basis, rents are deemed earned at the time of collection. If the realtor's books are kept on the accrual basis, rents are to be credited to income during the period to which the rent applies.

Under the income tax laws in effect, advance rentals are to be credited to Income in the year of collection if there are no restrictions in connection with the use of the funds. Where it is the general practice for a realtor to collect rents in advance, it would seem advisable to report all income and expenses on a cash basis. This would specifically apply to rents received in advance for leases covering one year or more. However, in instances where rent is collected monthly, it may be more advisable for the realtor to report on the accrual basis.

Allowances for Vacancies and Concessions

The general practice for purposes of a full control is to record all vacancies and concessions on the books. The journal entry used to record the vacancy or concession is to debit Gross Rent and credit Allowance for Vacancies and Concessions. For example, if an apartment or office, renting for $100.00 a month, is vacant for three months or a concession is given for that period, the accounts at the end of the year would reveal the following:

Gross Rental	$1,200.00
Less Allowance for Vacancies and Concessions	300.00
Net Rental Income	$ 900.00

The difference is the actual rent collected or to be collected.

Accounts Required

The accounting system of a realtor, acting as agent, provides for four principal division of accounts: (1) cash, (2) due from clients, (3) due to clients, and (4) clients' income and expense.

Cash Accounts—This group is comprised of separate cash accounts for each client, as explained above, and such cash account or accounts as the agent desires for controlling his own cash. Postings to these various cash accounts are made from a cash receipts book in which the income from rents or other income are entered, and a cash disbursement book in which all expenditures are recorded.

Due from Clients—The accounts receivable of a real estate agent are those which arise from a deficiency in the client's cash account. When and if money is advanced for a client this becomes a receivable to the agent and a liability of the client.

Due to Clients—A balance due to the client will be shown in the Due to Client account, usually representing the net of the income received over the charges disbursed. The account is closed periodically by payment.

Clients' Income and Expense Accounts—This account is a control of the property records. The credit side of this account will show the income of the client and the debit side the expenses disbursed. The net balance of this account represents the client's profit or loss on the property and is the amount due to or from the client less any advances. From subsidiary accounts a detailed analysis of the rent income and a breakdown of the expenses can be obtained.

The management of property by the owner himself entails additional profit and loss analyses and the inclusion of the realty asset values, and liabilities, etc. in the balance sheet. The eight major accounts necessary are outlined below.

Income Accounts consist chiefly of rents, commission fees, interest received, and miscellaneous income.

Operating Overhead is subdivided as follows: (1) maintenance charges, (2) general and administrative expenses, (3) taxes (except Federal income tax), (4) interest on mortgages, (5) depreciation, and (6) insurance.

Maintenance Charges are specific charges for the maintenance of buildings, such as coal, gas, electricity and other fuel costs, and repairs.

General and Administrative Expenses include professional fees, advertising, officers' salaries, office salaries, stationery, and any other extraneous expenses.

Taxes applicable to the real estate business are: (1) real estate, (2) payroll (social security and unemployment insurance), (3) state income or franchise, (4) miscellaneous, and, (5) federal income (to be debited to Surplus).

Interest on Mortgages comes under a special heading and shows the interest paid on first, and second and other mortgages.

Depreciation is recorded separately for each property.

Insurance is recorded separately for each property showing in detail fire, public liability, compensation insurance, rent insurance, loss of occupancy, and the many other types.

Chart of Accounts

Each account in the general ledger may have a numerical symbol to facilitate the posting and gathering of information. For this purpose a numeral is given to each general group or class of assets, liabilities, capital, income, and expense items, as follows:

Fixed Assets	100- 199
Investments	200- 299
Deferred Charges	300- 399
Current Assets	400- 499
Capital Account	500- 599
Deferred Credits	600- 690
Liabilities	700- 799
Income	800- 899
Property Operation and Maintenance Expenses	900- 999
General and Administrative Expenses	1000-1099

Below is given a detailed numerical classification of profit and loss accounts:

800 Income
- 801 Rents—Apartments
- 802 Rents—Taxpayers or stores

803 Rents—Office Space
804 Rents—Rooms
805 Initiation Fees (Clubs)
806 Life Membership (Clubs)
807 Dues (Clubs)
808 Commission Fees
809 Interest Income
810 Sales of Electricity
811 Commission Income—Rental of Washing Machines
812 Miscellaneous Income
813 Maid Service
825 Allowance for Vacancies (Offsets from Income)
826 Allowance for Concessions (Offsets from Income)

900 Property Operation and Maintenance Expenses
901 Salaries—Superintendent
902 Salaries—Engineers
903 Salaries—Custodians
904 Salaries—Miscellaneous
905 Unemployment Insurance—State
906 Unemployment Insurance—Federal
907 Social Security Taxes
908 Coal
909 Oil
910 Gas
911 Electricity
912 Telephone
913 Elevators
914 Salaries—Elevator Operators
915 Uniforms
916 Plumbing
917 Heating
918 Electrical Repairs
919 Roofing
920 Water Proofing
921 Carpentry
922 Masonry
923 Plastering
924 Painting
925 Glazing
926 Miscellaneous Expenses
927 Exterminating
928 Bus Service
929 Bus Expenses
930 Fire Extinguishing
931 Rubbish Removal
932 Supplies
a. Gas Ranges
b. Frigidaires
c. Shades
d. Screens

e. Shower Curtains
f. Awnings
g. Heating Supplies
h. Electrical Supplies
i. Plumbing Supplies
j. Paint
k. Miscellaneous Supplies

933 Water Expense
934 Ground Rent
935 Advertising
936 Brokerage
937 Management Fees
938 Insurance
a. Compensation
b. Public Liability
c. Fire Insurance

1000 General and Administrative Expenses
1001 Legal and Collection Fees
1002 Auditing
1003 Interest on Bonds
1004 Interest on Notes
1005 Interest on First Mortgage
1006 Interest on Second Mortgage
1007 Office Salaries
1008 Officers' Salaries
1009 Stationery and Printing
1010 Postage
1011 Dues and Subscriptions
1012 Taxes—State
1013 Real Estate Taxes
1014 Depreciation
a. Building
b. Building Equipment
c. Office Equipment
d. Buses
1015 Athletic Equipment
1016 Retirement Fund

Financial Statements

The usual forms of profit and loss statement and balance sheet follow:

PROFIT AND LOSS STATEMENT

INCOME
Rental Income
Less:
Allowance for Vacancies
Allowance for Concessions
Allowance for Bad Debts
Net Rental Income

Interest Income
Commission Income
Miscellaneous Income
Total Income

EXPENSES

Property Operation and Maintenance Expenses:
- Salaries—Superintendents
- Unemployment Insurance—State
- Unemployment Insurance—Federal
- Social Security Taxes
- Rental Expenses
- Light, Heat and Power:
  - Coal
  - Gas
  - Electric
  - Fuel
  - Water
- Exterminating Expense
- Rubbish Removal
- Repairs
  - Carpentry
  - Painting
  - Plumbing
  - Masonry
  - Plastering
  - Roofing
  - Glazing
  - Electrical
  - Miscellaneous Repairs
- Supplies:
  - Screens
  - Shades
  - Awnings
  - Refrigerators
  - Gas Ranges
  - Miscellaneous Supplies
- Insurance
  - Fire
  - Public Liability
  - Compensation
  - Miscellaneous

Total Property Operation and Maintenance Expenses

General and Administrative Expenses:
- Officers' Salaries
- Office Salaries
- Auditing Fees
- Legal Fees
- Stationery and Printing
- Office Supplies
- Telephone

Dues and Subscriptions
Miscellaneous Expenses
Auto Expenses
Real Estate Taxes
Interest on Mortgage
Depreciation:
  Building
  Building Equipment
  Furniture and Fixtures
  Auto
    Total General and Administrative Expenses
    Total Expenses

NET INCOME

BALANCE SHEET
(owner agent)

ASSETS

FIXED ASSETS			
Land		x x x	
Buildings	x x x		
Less:			
Reserve for Depreciation	x x x	x x x	
First Mortgage Payable	x x x	x x x	
Second Mortgage Payable	x x x	x x x	
Equity in Buildings			x x x
Furniture and Fixtures			
Less Reserve for Depreciation			
Net Depreciated Value			
Automobiles			
Less Reserve for Depreciation			
Net Depreciated Value			
Total Fixed Assets			
INVESTMENTS			
Bonds			
Building Association Shares			
Mortgages Receivable			
Total Investments			
DEFERRED CHARGES			
Unexpired Insurance			
Prepaid Taxes			
Supplies on Hand			
Other Prepayments			
Total Deferred Charges			
CURRENT ASSETS			
Cash in Banks			
Cash on Hand			
Total Cash on Hand and in Banks			
Mortgage Receivable—Due within One Year			
Due from Clients			

Rents Receivable
Notes Receivable
Interest Receivable
Commissions Receivable
Total Current Assets
TOTAL ASSETS

CAPITAL AND LIABILITIES

CAPITAL
Common Stock:
Authorized
CURRENT LIABILITIES
Notes Payable:
Banks
Others
Accounts Payable:
Trade
Others
Due to Clients
Securities Payable
Accrued Payroll Payable
Accrued Taxes Payable
State Unemployment Insurance
Federal Unemployment Insurance
Social Security Taxes
Miscellaneous
Accrued Interest Expense
Provision for Federal Income Tax
Total Current Liabilities
DEFERRED INCOME
Deferred Rental Income
Less Stock Unissued
Less Treasury Stock
Common Stock Outstanding
Preferred Stock:
Authorized
Less Stock Unissued
Preferred Stock Outstanding
Surplus:
Earned Surplus
Profit or Loss
Capital Surplus
Total Capital
TOTAL LIABILITIES AND CAPITAL

Comments

Several items on the financial statements are worthy of comment.

Allowance for Vacancies and Concessions—The gross rental income from apartments, stores, etc. is shown, less the allowance for vacancies and concessions on the profit and loss statement.

This is more advisable than showing the net rental income because it also shows the rent that is available from the vacant rental space.

Commission Income—Commission income is derived from management fees, leasing, and brokerage fees. Brokerage or commission fees are obtained from bringing together persons wishing to sell, purchase, or exchange real estate, or to borrow or lend on mortgages. The realtor's or agent's fee is either a percentage of the amount of the transaction or a specific sum.

Land should be segregated from buildings. The principal reason for this is that land is not subject to depreciation (except in rare instances, such as erosion and earthquake) while buildings are. The other items on the balance sheet are similar to the assets and liabilities of any ordinary business.

Mortgage Payable—If property is purchased subject to a mortgage, it is proper to show the cost of the property less the mortgage thereon and the equity of the property as indicated on the balance sheet. A mortgage acquired after the purchase of the property, and secured by the total properties, should be shown on the liability side of the balance sheet.

Bookkeeping Records

The records that are usually kept by the realtor are as follows:

The General ledger is a control of all subsidiary ledgers and includes the assets, liabilities, capital and surplus accounts, as well as income and expense accounts.

Property ledger records contain the locations and descriptions of the various properties. An analysis of the depreciation, improvements, and equipment purchased is usually included.

The Mortgages receivable ledger is a record of all mortgages. Included are the serial number of the mortgage, a description of the property, name of mortgagor, amount of mortgage, date of mortgage received, and other pertinent details.

The Accounts receivable ledger (due from clients) contains the detailed records of all clients' accounts which contain deficiencies.

The Accounts payable ledger (due to clients) contains the detailed records of all amounts due clients.

Tenant and rental ledgers and records contain the detailed records of all tenants, the monthly rents collected, particulars of leases, location of tenants, vacancies, and concessions, if any, etc.

The balance due from tenants for rent and other charges are also shown.

The Insurance register contains a detailed analysis of all insurance policies including the property insured, amount of insurance, name of the insurance company, policy number, agent, period covered, amount of premium, due dates, and other pertinent data.

The books of original entry include those for cash receipts, cash disbursements, voucher register, general journal, and petty cash.

ACCOUNTING FOR BUILDING MATERIAL DEALERS

By

ARTHUR A. HOOD *

BRIEF DESCRIPTION OF BUSINESS

The business of dealing in building materials is undergoing a more rapid and radical evolution than most other types of business. The details of this evolution should be understood because of their significance to the methods of accounting used by the modern building material dealer.

Prior to 1933, the material sales of the average dealer were about 85 per cent bulk material sales to the contractor and 15 per cent counter trade to various types of consumer. "Packages" of building industry service involving both labor and materials, such as houses, barns, roofs, and garages, were largely sold to the consumer by the building contractor, while the dealer was strictly a material dealer.

Since 1933, however, the average building material dealer, and especially the successful one, has become a package merchant selling materials combined with labor in package form to the consumer. A cross section of a successful building material merchant's business today would reveal 40 per cent package sales to consumers, involving materials combined with construction labor, about 30 per cent bulk material sales to contractors, and about 30 per cent counter sales to various types of consumers. Therefore, in our discussion of accounting, we have taken into consideration this new philosophy of building material retailing.

THEORY OF ACCOUNTS

The rapid evolution of the building material dealer in recent years from a "wholesaler-to-the-contractor" to a "building package

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merchant-to-the-consumer" has required an equivalent evolution in the philosophy of building material dealer accounting.

The modern dealer requires much more detailed and varied information from his accounting department than the dealer of a decade ago, but, as is understandable, accounting progress has lagged behind merchandising progress. The average dealer's books, which have not been reanalyzed and reorganized in recent years are inadequate to the needs of the modern dealer even though they may have been installed by a C.P.A.

The package selling building material dealer of today requires from his accounting system:

1. Department profit and loss figures (monthly and year-to-date)
2. Segregation of fixed expenses
3. Departmentalization of operating expenses
4. Departmentalization of selling expenses
5. Segregation of package sales profit and losses from material sales figures
6. Bases for budgeting control

The latter would include control of expenses, of turnover, of markup, of financing requirements from period to period, and the forecasting of gross and net profits.

Two basic operating policies are predicated on accounting theory: (1) competitive practices after the break-even point is achieved in sales volume by month or year-to-date; and (2) intensive sales efforts on the more profitable merchandise items, departments, and packages.

A decreasing number of dealers operate planing mills and millwork manufacturing plants, and these, of course, require a separate costing of manufacturing and fabrication. Occasionally a dealer carries a line of speculative houses built-for-sale, and these also require special accounting treatment.

Accounts Required

Naturally, a chart of accounts for the building material retailer will contain certain accounts not required by every dealer. A discussion of these can be omitted here. It should be remembered, however, that any saving that can be made through eliminating a few unnecessary accounts is more than offset by the loss of clarity in recording transactions. For example, a dealer may want to show all sales in one account, all inventories in another, all costs of sales

in a third. At the end of the year, this dealer will be able to determine the gross profit on sales but will be unable to determine how much profit was made on lumber, how much on millwork, how much on roofing and insulation materials, etc. His records will not show him the best profit lines on which to concentrate his efforts or the poorer profit lines in which he should reduce inventories.

Actually, it requires but little more effort to segregate the inventories, sales, and costs of sales into several accounts than it does to consolidate them. Whichever method is used the same number of transactions must be handled. The increased effectiveness in control of the business and the increased knowledge that can be gained offset any slight extra effort.

Dealer Segregation for Accounting Purposes

With regard to the accounts kept for their business, dealers have generally been divided into three classes:

Class 1

Operators of retail yards with sales to $50,000.00 yearly

Mill equipment (including power saws, planer, etc.) used to size and surface lumber only

Sash, door, and special millwork purchased from a sash and door mill

Class 2

Group 2a—Same as Class I, but with yearly sales above $50,000.00

Group 2b—Operators of retail yards with sales above $50,000.00 yearly. Mill equipment used to size and surface lumber. In addition, mill equipment used to manufacture sash, door, and other mill products.

Class 3

Operators of retail line yards and one or more sash and door mills. Individual yards with mill equipment to size and surface lumber only. Sash, door, and millwork supplied by the sash and door mill to yards. Each sash and door mill considered a separate unit even though it is physically a part of one of the yards.

A dealer should determine the group which most closely describes the conditions in his business. Each dealer's general ledger should include the accounts shown in Exhibits A, B, and BX for the group to which he decided he belongs.

Charts of General Ledger Accounts

Exhibits A, B, and BX present the accounts upon which an accounting system is based. The ledgers of both Class 1 and Class 2 should include the accounts listed in Exhibit A. Class 1 may omit such accounts marked with an asterisk as are not needed in their

Exhibit A

UNIFORM CHART OF GENERAL LEDGER ACCOUNTS FOR LUMBER AND BUILDING MATERIAL DEALERS

Assets

Current Assets

Cash and Bank
- 101 Cash Funds
- 105 Bank

Accounts and Notes Receivable
- 110 Accounts Receivable
- 112 Notes Receivable
- 115 Cash Sales Clearing
- 117 Employee Accounts Receivable
- 119 Reserve for Doubtful Accounts —Credit

Inventories
- 131 Lumber
- *132 Insulating Board and Wallboard
- 133 Millwork
- 134 Rockwool Insulation
- *135 Roofing and Siding
- 136 Hardware and Sundries
- *137 Paints
- 138 Mason's and Other Building Materials
- 140 Coal
- 149 Outside Materials

Investments
- *151 Mortgages Receivable
- *152 Liens Receivable

Fixed Assets		*Less: Reserve for Depreciation*
161	Land	None
162	Buildings	162R
163	Land Improvements	163R
*164	Mill Machinery and Equipment	*164R
165	Yard Equipment	165R
*166	Incinerators	*166R
*167	Spur Tracks	*167R
168	Trucks	168R
169	Automobiles	169R
170	Furniture and Fixtures	170R

Deferred Charges
- *181 Prepaid Insurance
- *182 Prepaid Taxes
- 185 Other Prepaid Expenses

Other Assets
- 191 Deposits
- *195 Organization Expense

Liabilities

Current Liabilities

Notes and Accounts Payable
- 201 Notes Payable—Bank
- 202 Notes Payable—Trade
- 205 Accounts Payable
- 209 Package Sale Escrow Funds

Accrued Liabilities
- 221 Commissions Payable
- 222 Accrued Pay Roll
- 223 Employee Payroll Contributions
  - * 223.1 Federal Old Age Annuity
  - * 223.2 State Unemployment Insurance
- 224 Employer Payroll Taxes Payable
  - * 224.1 Federal Old Age Annuity
  - * 224.2 Federal Unemployment Insurance
  - * 224.3 State Unemployment Insurance
- 225 Sales Tax Payable
- 226 General Taxes Payable
- *227 Accrued Interest Payable

Fixed Liabilities
- *241 Mortgages Payable

Capital

Partnership or Sole Proprietorship
- 251 Investment
- 261 Drawing Account
- 281 Profit and Loss—Current

Corporation
- 251 Preferred Stock—Authorized
- 252 Preferred Stock—Unissued
- 261 Common Stock—Authorized
- 262 Common Stock—Unissued
- 271 Surplus
- 281 Profit and Loss—Current

Revenues

Sales		*Cost of Goods Sold*
331	Lumber	431
*332	Insulating Board and Wallboard	*432
333	Millwork	433
334	Rockwool Insulation	434
*335	Roofing and Siding	*435
336	Hardware and Sundries	436
*337	Paints	*437
338	Mason's and Other Building Materials	438
339	Direct Shipments	439
*340	Coal	*440
345	Cartage	None
346	Administrative Service Charge	Nonc
349	Outside Materials	449

business. They may also use a single group of accounts to record expenses, numbering the accounts as shown under the heading "For Class 1 Dealers." Class 2a (those who buy mill products) also may use the single expense group. However, Class 2b (those who manufacture mill products) should use all three groups of expenses listed in Exhibit B under the heading "For Class 2 Dealers." Class 3, in addition to the accounts in Exhibit A, should

Exhibit B

CLASSIFICATION OF EXPENSES FOR CLASSES ONE AND TWO OF LUMBER AND BUILDING MATERIAL DEALERS

Expenses

For Class 1 Dealers		*For Class 2 Dealers*		
	Item	Mill 500	Yard 501	Administration and General 599
501	Mill Labor	500.1	x	x
502	Trucking Labor	x	501.2	x
503	Yard Labor	x	501.3	x
504	Sales Salaries and Commissions	x	x	599.4
505	Office Salaries	x	x	599.5
506	Executive Salaries	x	x	599.6
508	Compensation Insurance	500.8	501.8	599.8
509	Payroll Taxes	500.9	501.9	599.9
511	Gas and Oil	x	501.11	599.11
512	Car Mileage	x	x	599.12
513	General Supplies	500.13	501.13	x
514	Office Supplies	x	x	599.14
515	Heat, Light, Water, and Power	500.15	501.15	599.15
516	Telephone and Telegraph	x	x	599.16
521	Depreciation	500.21	501.21	599.21
522	Insurance	500.22	501.22	599.22
523	Rent	500.23	501.23	599.23
524	Repairs and Maintenance	500.24	501.24	599.24
525	Taxes	500.25	501.25	599.25
531	Advertising	x	x	599.31
532	Cartage Hired	x	501.32	x
533	Demurrage	x	501.33	x
534	Donations	x	x	599.34
535	Dues and Subscriptions	x	x	599.35
536	Losses on Bad Accounts	x	x	599.36
540	Unclassified	500.40	501.40	599.40
	Mill Expense Charged to Inventory—Credit	500.99	x	x

Miscellaneous Gains and Losses

Other Income		Deductions From Income	
601	Interest Earned	651	Interest Cost
602	Discounts Earned	652	Discounts Allowed
605	Cash Over	655	Cash Short
609	Miscellaneous Gains	659	Miscellaneous Losses

analyze expenses by line yards in accordance with Exhibit BX, which merely means the addition of a separate group of expense accounts for each line yard. Provision must also be made for the

Exhibit BX

UNIFORM CLASSIFICATION OF EXPENSES FOR CLASS 3 LUMBER AND BUILDING MATERIAL DEALERS

(Line Yard Operators)

		Mill 500	Line Yard 1 501	Line Yard 2 502	Line Yard 3 503	Administration and General 599
. 1	Mill Labor	500.1	501.1	502.1	503.1	x
. 2	Trucking Labor	x	501.2	502.2	503.2	x
. 3	Yard Labor	x	501.3	502.3	503.3	x
. 4	Sales Salaries and Commissions	x	501.4	502.4	503.4	599.4
. 5	Office Salaries	x	501.5	502.5	503.5	599.5
. 6	Executive Salaries	500.6	501.6	502.6	503.6	599.6
. 8	Compensation Insurance	500.8	501.8	502.8	503.8	599.8
. 9	Payroll Taxes	500.9	501.9	502.9	503.9	599.9
.11	Gas and Oil	x	501.11	502.11	503.11	599.11
.12	Car Mileage	x	501.12	502.12	503.12	599.12
.13	General Supplies	500.13	501.13	502.13	503.13	x
.14	Office Supplies	x	501.14	502.14	503.14	599.14
.15	Heat, Light, Water, and Power	500.15	501.15	502.15	503.15	599.15
.16	Telephone and Telegraph	x	501.16	502.16	503.16	599.16
.21	Depreciation	500.21	501.21	502.21	503.21	599.21
.22	Insurance	500.22	501.22	502.22	503.22	599.22
.23	Rent	500.23	501.23	502.23	503.23	599.23
.24	Repairs and Maintenance	500.24	501.24	502.24	503.24	599.24
.25	Taxes	500.25	501.25	502.25	503.25	599.25
.31	Advertising	x	501.31	502.31	503.31	599.31
.32	Cartage Hired	x	501.32	502.32	503.32	x
.33	Demurrage	x	501.33	502.33	503.33	x
.34	Donations	x	x	x	x	599.34
.35	Dues and Subscriptions	x	x	x	x	599.35
.36	Losses on Bad Accounts	x	501.36	502.36	503.36	599.36
.40	Unclassified	500.40	501.40	502.40	503.40	599.40
.99	Mill Expense Charged to Inventory—Credit	500.99	x	x	x	x

Some or all of the following accounts also should be analyzed by yards:

101 Cash Funds	161-170 Fixed Assets
105 Bank	162R-170R Reserves for Depreciation
110 Accounts Receivable	209 Package Sales Escrow Funds
112 Notes Receivable	331-350 Sales
131-149 Inventories	431-449 Cost of Goods Sold

This distribution can be effected on analysis ledger leaves. Inventory, Sales, and Cost of Goods Sold accounts should be opened for each yard and analyzed by kinds. All other accounts should be captioned for the item, as Land, Accounts 161, and analyzed by yards.

analysis of certain other accounts by yards, as is indicated in Exhibit BX.

The division of Class 2 into two groups of dealers was necessary in order to find comparable costs on mill products. Group 2a buys sash and door products and can determine actual costs. Group 2b makes sash and door products, must determine mill work costs in order to compare results with group 2a; also, to see if sash and door costs are comparable with prevailing market prices for these mill products.

The basic procedure is applicable to the needs of dealers of business of every size, since there is little difference in the fundamental accounting activities of dealers with large or small volume, except in the number of transactions handled. In both cases, the same *types* of transactions are involved. While dealers in Class 1 are required to use the same basic ledger accounts, they may omit those accounts marked with an asterisk which are not needed in their business. However, too great simplification may result in loss of clarity and a reduction in information obtainable from the system.

Treatment of Mill Expenses

Class 1 and Class 2a may charge all expenses of operating mill equipment to the regular expense group. Class 2b, those who make sash and door products in addition to sizing and surfacing lumber, must record mill expense separately in order to segregate it into two kinds, (1) expense of sizing and surfacing lumber, and (2) expense of making mill products.

Mill expense can be segregated upon a time-basis by keeping a record of the man-hours expended on each kind of work and dividing the mill expense on the basis of that record. The expense of sizing and surfacing lumber during the period is transferred by journal entry to the lumber inventory as follows:

Dr.—Lumber Inventory, Account 131
Cr.—Mill Expense Charged to Inventory, Account 500.99

The expense of making sash and door then is added to the cost of lumber used to determine the total cost of millwork products. The resulting cost of mill products is charged to millwork inventory by using the following journal entry:

Dr.—Millwork Inventory, Account 133
Cr.—Lumber Inventory, Account 131

Cr.—Mill Expense Charged to Inventory, Account 500.99

If there are any unfinished mill products in process, the expense applicable to these products may be set up as a deferred charge item. When these entries have been posted, the balance in Account 500.99 should exactly equal the balance in Mill Expense, Account 500, clearing the account. The deferred charge should be cleared back into the Mill Expense Charged to Inventory account at the beginning of the new accounting period.

By dividing mill expense in this manner Class 2b, those who make their own sash and door products, can compare their costs with those of the dealers who purchase these products. Class 3 will make a similar analysis of mill expense where the mill is used to size and surface lumber for the yards.

Operating Statements

Users of these accounts can procure three financial statements: the usual balance sheet, a master profit and loss statement, shown in Exhibit C, and a package sales profit and loss statement, shown in Exhibit D. The figures for the balance sheet and master profit and loss statement are taken from the general ledger. Sales figures for the month column of the special package sales statement are procured from a record of package sales deliveries. The cost of goods sold for each class of sales is computed on the basis of a gross profit percentage established for each class. Year-to-date figures for this statement are determined by cross-adding the current-month results to the year-to-date figures of the previous month's statement.

The profit comparison section enables the dealer to compare his gross and net operating profit on package sales with those earned on his nonpackage sales. In this comparison, package sales of stock materials are deducted from Total Stock Material Sales, as shown on the master profit and loss statement, to determine the net nonpackage sales of stock materials. Total gross profit on stock materials is reduced to nonpackage sales gross profit in a similar manner. From nonpackage sales gross profit a deduction is made for that portion of expenses applicable to nonpackage sales of stock materials to determine net operating profit on nonpackage sales. The profits from nonpackage stock material sales are readily com-

parable with those of the package sales department after this simple computation is completed.

Exhibit C

MASTER PROFIT AND LOSS STATEMENT FOR ALL DEALERS

331 Lumber Sales
431 Cost of Goods Sold
Gross Profit
332 Insulation, Gypsum and Wallboard Sales
432 Cost of Goods Sold
Gross Profit
333 Millwork Sales
433 Cost of Goods Sold
Gross Profit
334 Building Material Sales
434 Cost of Goods Sold
Gross Profit
335 Roofing Sales
435 Cost of Goods Sold
Gross Profit
336 Hardware and Sundry Sales
436 Cost of Goods Sold
Gross Profit
337 Paint Sales
437 Cost of Goods Sold
Gross Profit
338 Mason's Material and Supply Sales
438 Cost of Goods Sold
Gross Profit
339 Coal
439 Cost of Goods Sold
Gross Profit
350 Cartage
351 Administrative Service Charge
Total Stock Material Sales
Total Cost of Stock Material Sold
Total Gross Profit Stock Material
340 Outside Material Sales
440 Cost of Goods Sold
Gross Profit
Total Gross Profit
Expenses (See Schedule)
Net Operating Profit
601 Interest Earned
602 Discounts Earned
605 Cash Over
609 Miscellaneous Gains
Total Operating Profit and Other Incidentals
651 Interest Cost
652 Discounts Allowed
655 Cash Short
659 Miscellaneous Losses
Total Deductions from Income
Net Profit or Loss (Current)

Exhibit D

PACKAGE SALES PROFIT AND LOSS STATEMENT

331 Lumber Sales
431 Cost of Goods Sold
Gross Profit
332 Insulation, Gypsum and Wallboard Sales
432 Cost of Goods Sold
Gross Profit
333 Millwork Sales
433 Cost of Goods Sold
Gross Profit
334 Building Material Sales
434 Cost of Goods Sold
Gross Profit
335 Roofing Sales
435 Cost of Goods Sold
Gross Profit
336 Hardware and Sundry Sales
436 Cost of Goods Sold
Gross Profit
337 Paint Sales
437 Cost of Goods Sold
Gross Profit
338 Mason's Material and Supply Sales
438 Cost of Goods Sold
Gross Profit
351 Administrative Service Charge
Total Sales—Stock Materials
Total Cost of Stock Material Sold
Total Gross Profit—Stock Material
* Prorated Expense

* A small administrative charge should be assessed against this gross profit in order to arrive at actual net profit.

Net Profit—Stock Material
340 Outside Material Sales
440 Cost of Goods Sold
Gross Profit
Prorated Expense
Net Profit—Outside Material
Total Package Sales Net Profit
Profit Comparison
Total Stock Sales—Statement C
Less: Package Sales Stock Material Above
Nonpackage Sales Stock Material

Total Gross Profit Stock Material Statement C
Less: Gross Profit Package Sales Above
Nonpackage Sales Gross Profit
Prorated Expense
Net Operating Profit Nonpackage Sales

Balance Sheet

The usual statement of assets and liabilities may be easily prepared using the Chart of Account as shown in Exhibit A.

Bookkeeping Methods

The customary ledgers, journals, and forms are used in building material dealer accounting. In addition to these usual forms for recording purchases, sales, cash receipts, and checks drawn, the following four special records which pertain particularly to the package sales structure should be kept:

A Record of Package Sales Contracts is a columnar journal sheet which provides the following information for each package sale contract: contract number, total amount, amount of regular materials, amount of outstanding materials, amount of administrative service charge, amount to contractor, amount for compensation insurance, amount to architect, commission to salesmen on regular material and outside material, financing charge, and then sales tax, if any.

A Record of Package Sales Deliveries gives the departmental distribution of various items in the package sale.

A Package Sales Job Ledger Sheet contains the details of each individual package sales contract on a single ledger page.

An Employee's Compensation Record includes such items as record of employment, payroll record, time worked and lost, total earnings, deductions, tax and status.

Postings to the general ledger are made monthly in accordance with the customary procedure.

ACCOUNTING FOR THE CANNING INDUSTRY

By

RALPH H. BARR*

BRIEF DESCRIPTION OF BUSINESS

The canning industry is a manufacturing business that converts raw fruits and vegetables into canned goods. Its raw materials are the raw product, fruits and vegetables, cans and other containers, sugar, salt, and condiments. The raw product must be prepared by removing skins, pits, seeds, stems, etc. The sugar must be converted into syrup. Preservation is accomplished by cooking, and sealing so that live bacteria cannot exist in the sealed can.

A peculiarity of this business is the seasonal nature which has far-reaching effects on the conduct of the business. Generally speaking, there is only one crop of each raw product in a year. The harvest of each crop is usually limited to a short period of a few days or weeks. This imposes several problems for the canner. He must estimate his year's potential business and purchase the raw product for an entire year's business prior to the harvest. He must have adequate sales and stock records so that he can avoid being overstocked, on the one hand, and undersold, on the other. His accounting system must be such that necessary information is available immediately. Not knowing his costs for a week after the work has been done is too late. The season may be over before he knows that his costs are running too high. Then he cannot correct them.

The canner must take care of his customers' requirements for the entire year. Before the season he must determine what these requirements are likely to be and see that his purchases of raw products are sufficient. He must arrange to carry the stock for many months to supply the demand during the months following the harvest season. He must make his pack in sizes and grades that

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will meet his orders on hand, together with what he estimates his customers will want in the future.

The seasonal nature of the business makes it necessary to operate with a high volume during the harvest season, and nearly a complete shutdown during the nonharvest season, with the result that only key employees can be kept during the year, requiring the training of, and operating with, new employees each season.

The pack must be watched daily, even from hour to hour. Daily production instructions are based upon a record of sales requirements, including estimates of future orders to be received, compared with the total production to date. These instructions must be in complete detail as to varieties of product, sizes of containers, and grades or quality of product. An error in the records may lead to a serious error in the production, for, unlike other businesses, when the harvest is in, there is no further supply to fill orders which may have been overlooked. Production of items not required, or the failure to pack items on order is likely to result in serious financial losses.

Theory of Accounts

The accounting process is that of a manufacturer with a cost accounting system. Generally a process cost accounting system is in order. There is good reason for not having the cost accounting system an integral part of the double entry system, although the figures used in the cost accounting should tie in with the general ledger records. The cost accounts should show the unit costs of raw product, labor, sugar, cans, and other containers, other direct costs, and overhead. It should also show the quantity of raw product used, per unit, and percentages of various grades produced. The unit is generally the case. The unit costs by elements should be shown for each day's production, and also for the entire pack for the season to date.

The fundamental purpose of the cost accounts is to control the costs of production, rather than to serve as a basis for determining selling prices. Selling prices are likely to be determined by competition. The cost accounts can, however, show the more profitable items and be useful in determining which items should be produced more heavily and which should be avoided to the extent possible.

Compared with other industries, there is little work in process. The perishable nature of the product requires that it be sterilized, cooked, and sealed in airtight containers within a short period of time. This generally means that all fruit and vegetables on which processing has been started must be finished before the day's work is over.

The Cost of Production may be taken to be the cost at the point where the goods are stored in the warehouse; and the cost of cases, labels, and the labor cost of labeling and shipping may be considered a separate item. The cost of production may, however, include total costs, with cases and labels included. The decision in this matter is dependent upon operating methods. Where casing and labeling follow immediately after cooking, the costs may well include the cases and labels. Where, however, casing and labeling are done sometime later in connection with shipping, convenience may make it preferable to end direct cost of manufacturing at the point of stacking after cooking.

The cost accounts should be broken down by varieties of raw products. The cost of all manufacturing elements may be charged direct to Manufacturing Account, including the inventories at the beginning of the year of raw materials, the inventories at the end of the year being credited to the Manufacturing Account.

The Manufacturing Account is credited with the total cost of goods manufactured, the debit being to Finished Goods. Finished Goods is credited with the cost of goods sold, Cost of Goods Sold being charged.

By taking advantage of unit costs and applying them to the quantities sold, monthly profit and loss accounts can be prepared on working papers, not making monthly entries as described in the previous paragraph until the end of the year. This avoids taking a monthly inventory, either physically or by costing the inventory from the stock records.

Accounts Required

The following schedule of general ledger accounts is reduced to a small number of major groups, each of which may be further broken down either by subsidiary ledgers or by analysis columns in the general ledger.

BALANCE SHEET

Assets

1 Cash, with separate accounts for the various banks and kinds of funds, such as commercial account, payroll account, petty cash, etc.

20 Notes and acceptances receivable

30 Accounts receivable. This account will be supported by a subsidiary ledger. There may be more than one general ledger account with accounts receivable if sales are made from, and responsibility for collection is located at, different points

40 Inventories of raw materials and finished goods. This includes the manufacturing account, the balance of which represents practically the total cost of production until the completion of the pack of each variety, at which time, the cost of the pack of that variety is transferred to finished goods

50 Prepaid insurance and other expenses

80 Fixed assets and provision for depreciation

90 Deferred charges

Liabilities

100 Notes payable to banks

110 Accounts payable

150 Capital and surplus

PROFIT AND LOSS

Income

200 Sales accounts and allowances

Expenses

300 Cost of sales

400 Selling expenses

500 Administrative expenses

Income Charges and Credits

600 Other income credits

700 Other income charges

The Manufacturing Account should be broken down to record the costs of the various component elements. The accounts should include the following:

Direct Costs

Raw product, includes hauling charges, buying expenses, and commissions
Cans
Sugar
Labor, including social security taxes and compensation insurance
Rent and royalties on labor saving equipment
Peeling and processing materials
Fuel
Other ingredients
Cases and labels
Labor cost of casing, labeling and shipping

Indirect Costs

Salaries
Indirect labor

Insurance
Light, power, and water
Repairs
Property taxes
Depreciation
Miscellaneous manufacturing expenses

The Selling expense accounts should include the following:

Salesmen's salaries
Traveling and entertainment
Brokerage and commissions
Office expenses

The General and Administrative accounts should include the following:

Salaries executives	Rent
Salaries office	Insurance
Traveling and entertainment	Taxes
Professional services	Depreciation
Office expenses	

The Operating Statement

The operation of a cost system is comparatively simple and not unduly costly, and thus there is no reason why a canner cannot have a monthly profit and loss account. To obtain the most advantage from it, the profit and loss account should be supported by schedules showing the profit and loss on the various varieties of products produced and sold. It is also comparatively simple to keep a record of the number of cases sold, produced, and of the opening and closing inventories so that the sales in quantity should balance with the production adjusted for the opening and closing inventories. This reveals discrepancies which may be caused by errors in the reported production, in the inventory quantities, or in the failure to record sales and such discrepancies may be traced and errors corrected.

The form of the Profit and Loss Account is as follows:

Sales:

Less: Trade discounts and allowances and returns
Cash discounts and special allowances
Allowances for swell, freight, etc.
Net Income from Sales

Less: Cost of goods sold, direct manufacturing
Cases, labels, warehouse labor, shipping costs, and factory overhead expenses

Less: Selling expense
Brokerage
Samples
Other selling expenses (supporting schedule)
General and administrative expenses (supporting schedule)
Net Profit on Sales

Add: Other income (supporting schedule)

Less: Other expenses (supporting schedule)
Net Profit

The form of the Balance Sheet is as follows:

Current Assets
Cash on Hand and in Bank
Notes and Acceptances Receivable
Accounts Receivable
Inventories
Finished Goods
Materials and Supplies
Prepaid Expenses
Total Current Assets

Fixed Assets
Land
Buildings
Machinery and Equipment
Automotive Equipment
Total
Less: Allowance for Depreciation

Deferred Charges
Total Assets

Current Liabilities
Notes Payable to Banks
Notes Payable Other
Accounts Payable
Accrued Expenses
Total Current Liabilities

Capital and Surplus
Capital Stock, Common
Capital Stock, Preferred
Surplus
Total Capital and Surplus
Total Liabilities and Capital

The need in this industry of assurance that items are not oversold makes a statistical statement of sales and production very desirable. The following form is suggested:

	Quantity
Orders booked	
Less: Shipments to date	
Balance unshipped sales	
Inventory at beginning of year	
Cases produced	
Total	
Less: Cases shipped	
Balance on hand unshipped	

To complete the picture, the balance on hand unshipped, plus estimated future production, should equal the unshipped sales and the prospective quantity available for future sale. These statements should be worked out by varieties, as an overage on one product is of little help to supply a shortage on another product.

The Inventory Record. It appears to be simpler to have the stock record a record of quantities only, without entering the unit or total value of the various quantities shown. The inventory records must show not only stock on hand, but also stock available for sale, and stock available for shipment. Shipping instructions are sent to the shipping department ahead of shipping dates, to give time to prepare the shipments, combine the various items in one order, perhaps label and case, dependent upon the kind of business done. This means that the quantity of merchandise on hand will be different from that available for issuing future shipping instructions. Then there must also be a record of stock available for future sale. That is the quantity on hand in excess of unshipped sales.

Bookkeeping

The bookkeeping methods will be dependent upon the size of the organization and whether more than one plant is operated.

General Ledger. The general ledger should consist mainly of control accounts showing cash, accounts receivable, merchandise inventories, raw material, inventories, prepaid expenses, fixed assets and allowance for depreciation and deferred charges, notes payable, accounts or vouchers payable, accrued expenses, reserves, and capital and surplus or partners' accounts, or net worth in a sole proprietorship, sales, selling expenses, manufacturing costs, general and administrative expenses, and other income and other expenses.

Accounts Receivable Ledger. This is a subsidiary record. Much work can be saved by eliminating the record of certain accounts receivable. Many sales are made on the basis of a sight draft drawn against a bill of lading. Unless an account is kept for statistical information of the amount of business done by each customer, there seems to be no reason to post sales of this kind to an accounts receivable ledger. A record must be kept of drafts drawn and date of payment to show that all are eventually paid or otherwise disposed of.

Accounts Payable Ledger. Ordinarily, with the operation of a voucher system, an accounts payable ledger will be necessary only for the accounts that are not taken care of by payment of specific vouchers. An accounts payable ledger will be generally necessary for accounts with growers, although when payments are made at fixed intervals, such as weekly, covering the entire deliveries of the previous period, a ledger is not necessary. When a ledger is kept, it should show tonnage received, and charges which may be made to growers, such as for usage of boxes and cash paid.

Payroll Record. The payroll is likely to be quite complicated, particularly when piecework is involved. It must show the daily charges to the various operations, by the different kinds of raw products, for cost accounting information. It will have to provide for deductions for withholding and social security taxes, and also for the sale of equipment to employees, and other charges to employees.

Social security taxes and compensation insurance charges are sufficiently high to warrant charging them as a direct labor cost to the different operations.

The foregoing is in outline only, and further amplification can be made if the size of the business demands it.

ACCOUNTING FOR CARPET AND LINOLEUM CONTRACTORS

By

JULIUS D. KAHN *

BRIEF DESCRIPTION OF BUSINESS

Carpet and linoleum contractors vary as to the nature of their operations and as to type of business organization. Contractors may deal directly with owners as independent contractors or with general contractors as subcontractors. Contracting is not always confined exclusively as such, but is frequently coupled with a retail trade in which either one or the other may be the main source of income. Department stores and other retail stores sometimes operate carpet and linoleum contracting departments; occasionally mills and jobbers do likewise. Certain contractors (as a rule the small operators) engage in installations of all types; others, comprising the large contractors, specialize in installations for a particular field, for example, apartment houses, buildings, hotels and theatres, interior decorators, commercial and business offices, lofts, steamships, and private residences. The stock carried may include only samples, in which case merchandise is purchased as required; large contractors may have elaborate showrooms and operating warehouses which carry a complete stock of merchandise.

In addition to architects, advertising, and direct selling, the contractor uses various services sold on a subscription basis which supply him daily or periodically with leads giving a summary of the details involved. The book, *Sub-Contractors Register,* in which a listing may be obtained for a fee, is used extensively by architects, engineers, general contractors, builders, real estate management firms, and government agencies, in obtaining bids for jobs.

Leads obtained from these sources are usually followed up by an estimator for the purpose of "taking off" quantities and specifications for the job, from which bids are compiled. "Take off" con-

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sists of reading plans, blue prints of jobs, or taking actual physical measurements, as the case may be. Bids may be submitted on a bulk-sum, unit-price, or cost-plus basis. These bids are then submitted and followed up by salesmen who are assigned to certain territories. Salesmen are compensated on the basis of a straight salary, commission only, salary and commission, or percentage of gross profit on each job. The terms of payments vary with types of installations and the owner's requirements and may provide for the following: (1) payment on completion of job, (2) monthly settlements for work performed and approved during the previous month, (3) payments as individual sections or units are completed and approved, and (4) payments for merchandise installed and on hand at the end of the month. General contractors usually require a holdback, which represents a certain percentage (usually 10 or 15 per cent) of the entire contract price that is withheld until after completion of the entire project or construction, and approval by the owner or his inspectors such as the architect or supervisor. Completion bonds are generally required, and time completion bonds are required in certain cases.

Certain jobs can be bid upon only by qualified contractors. In order to be considered a qualified contractor, certain performance and financial requirements must be met. The contractor must show that he has done satisfactory installations for reputable concerns usually for the specific type of installation required and that he is financially capable of completing the job.

If the contractor is awarded the bid, a copy of the bid is signed by both parties which then becomes the contract. A formal contract is sometimes drawn stipulating all specifications concerning quantities, quality of materials to be used, work to be done, terms of payments, and agreements covering any extras, credits, or omissions. Extras are additions to or alterations on the job agreed upon subsequent to the signing of the regular contract. In some instances, the contractor may commence operations immediately. In others, such as buildings and other large construction work, he must wait until construction has reached the stage when he may start installation work. He is usually notified in ample time so as to enable him to place his commitments for merchandise in time to have it available when needed, and in order to facilitate preparations prior to actual installation. Time is a very important element, as any delay

by a subcontractor in construction work may hold up other subcontractors, increase the carrying cost to the builder, and postpone the day of occupancy. Some contractors particularly government agencies, stipulate liquidating damages in the contract.

Installations may cover either hard-surface goods, such as linoleum, inlaid, wall linoleum, asphalt, lino tile, and fibreized mastic, or soft goods, such as broadloom, carpeting, and rugs. Mills specialize in either hard or soft goods, whereas jobbers generally carry both, and are usually required to represent only one major mill for each type of merchandise. Certain types of goods may be purchased directly from the mills by the contractor, which may or may not be in quantities or carload lots. Both the mills and jobbers as a rule issue rebates on certain goods, which may be computed on a flat percentage or a graduating percentage scale depending upon quantities purchased. Such rebates are usually received semi-annually or annually. Deliveries of merchandise are made either directly to the job or to the contractor's warehouse. Other necessary accessories, such as cement, paste, felt, carpet linings, bindings, and metal nosings, may be carried in stock or purchased locally from carpet and linoleum supply houses as required.

When the material is available and shipped to the job, the installation work is then allocated to the various mechanics and helpers who do the actual laying work according to the specifications stated in the contract.

Theory of Accounts

Where a retail, wholesale, or other type of business is carried on in addition to contracting, it is imperative to keep separate accounts for sales, purchases, labor, and other costs, and to apportion the operating expenses on some equitable basis so that the net results of the contracting end of the business may be accurately determined. The purchase account would have to be segregated to apply to each end of the business in some manner depending upon the circumstances of each case.

The question concerning how to handle uncompleted contracts is not the same problem in the carpet and linoleum contracting business that it is in the construction field inasmuch as practically all contracts are completed well within one year's time. The accepted practice is not to anticipate any profits on uncompleted contracts.

but rather to take into the accounts and operating statements the results on only those contracts completed during the period under review. However, where contracts call for billing of sections or units as completed, it is customary to include them as part of the sales for the period the same as if they were individual contracts. Extras are also treated as a part of regular sales. Whereas it may also be customary for builders to record all signed contracts on hand on the books by some memo journal entry, carpet and linoleum contractors as a rule do not follow this practice. Instead, as a matter of good accounting practice, the total of the signed contracts on hand or in process is either stated as a footnote on the financial statements or included in the comments of the report. The importance of this is realized when consideration is given to the risky nature of the contractor's business, the instability of sales volume (which may vary greatly when large contracts are obtained), and the necessity to enlighten the reader of the financial statements with regard to anticipation of prospective results and effect upon condition.

In setting up the operating statement, the contractor's basis of estimating jobs must be kept in mind, so that it will reflect his methods of computing bids. Generally, costs are divided into (1) variable costs which includes prime costs of materials and labor, and (2) constant and fixed expenses which includes the operating expenses.

Variable Costs—The cost of goods sold section of the operating statement should show the prime costs on completed contracts only, consistent with the sales being reported for the period under review. The inventory of materials on hand both in the warehouse, showrooms, or out on jobs in process at the end of the period is deducted from the total of purchases plus the inventory at the beginning of the period in order to give the cost of materials consumed on jobs completed during the period. To determine the labor costs on jobs completed during the period, the accrued labor at the end and the deferred labor at the beginning is added to the trial balance figures of labor paid during the period, from which sum is deducted the total of the accrued labor at the beginning and the deferred labor at the end. The deferred labor is the amount of labor paid or accrued as of the end of the period on jobs which are still in progress and not billed prior to the end of the period. Other

variable costs, such as trucking expenses and payroll taxes, are taken into consideration by estimators in compiling bids so that large jobs share their proportionate part of these variable expenses before allowing for other constant and fixed operating expenses. These items, however, are generally handled as part of the operating expenses on the profit and loss statement so that the gross profit on materials and labor only will not be disturbed.

Constant and Fixed Expenses—This section contains all the operating expenses of the business, and comprises three main divisions: (1) warehouse and delivery, (2) selling, and (3) general and administrative.

Cost System for Carpet and Linoleum Contractors

It is essential to have a yardstick which will permit some degree of control and efficiency during operations. The yardstick of a contractor is his estimating and cost system which provides the necessary detailed information to account accurately for the total cost of goods sold as shown by the operating statement by individual jobs performed; the system is, of course, of the job order type.

The following forms are an integral part of any cost system for contractors: (1) estimate and cost sheet, (2) merchandise and work ticket, and (3) mechanics' labor report.

Estimate and Cost Sheet—This sheet is numbered consecutively for jobs awarded, and serves as a "jacket" for the entire job to which is attached all pertinent papers and forms for future reference. The face of the forms contains details of the contract showing: estimate price, contract price, billings—date and amount, installation to be done, and specifications—patterns, color, yardage, etc., together with a cost summary as follows:

Costs	
Materials	$
Labor	$
Other Direct Costs	$
Total Prime Costs	$
Contract Price	$
Gross Profit	$

The back of this form contains a summary of labor costs showing date, mechanic, work done, and amount, which is compiled from the individual mechanic's labor report.

Merchandise and Work Ticket—This form is a material requisition and contains installation instructions for the job to be done. It includes details concerning location, materials, and installation specifications, and a floor plan or sketch of the job on a graph ruling printed on the back of the form. When the job is completed, this ticket is signed by the customer to show that the job has been completed satisfactorily, which is the basis for billing. Any materials remaining on the job to be picked up for the warehouse is listed. This ticket is then attached to the estimate and cost sheet and the total net materials cost is entered on the cost summary. Where a contract calls for numerous installations, several tickets may be used. Some contractors, where warranted, may employ several forms to fulfill all the purposes of this one ticket which may consist of a shipping memo for the shipping department, a cutting ticket for the warehouse, a work ticket for the mechanics, etc.

Mechanics' Labor Report—The best method of controlling labor costs and the one most commonly used, is to have a separate weekly sheet for each mechanic, which lists the name and address of the job, job number worked on, work done, time spent, rate, expenses, and total amount, for each day of the week. The labor details for each job are then posted to the respective cost sheets according to job numbers. In the work done column it is important to be consistent with the basis of the contract. If on a yardage basis, list yardage laid; if on a unit basis, such as kitchens for builders of apartment houses, list apartment numbers of kitchens installed. In this way, a comparison of the face of the cost sheet with the back of the sheet can be made and the progress of the job can be determined readily and controlled. The expenses column is used for miscellaneous items advanced or incurred by the mechanics, such as fares, phone calls, and small purchases of supplies which should be easily available to save time. The mechanic is reimbursed at pay time for these items.

The problem of handling idle time, indirect productive labor, and inside warehouse help which may consist of both direct and indirect labor will vary with each organization, depending upon its size, nature of operations, and the duties of individual employees. Broadly, in small concerns where a mechanic may have many duties, idle time could be directly absorbed and distributed among the various jobs on some equitable basis, thereby eliminating the prob-

lem entirely for reasons of simplification and convenience. This plan is only advisable when the proportionate amount of idle time and nonproductive time to productive labor is negligible or sufficiently small as not to upset the true allocation of costs. Where management wants to know this amount regardless of its size, or where it is important enough to warrant consideration, or where nonproductive time cannot be directly appropriated to any particular job—in these cases, idle and indirect labor may be carried in a separate account classification in the general ledger and grouped as part of the operating expenses on the operating statement. Only direct labor and materials would be shown as the prime costs of installation allowing for a large enough mark-up in setting selling prices to cover the indirect and idle labor as well as the normal operating expenses. Where such costs are treated as part of the cost of the job and are shown under the cost of goods sold section of the operating statement, allocation is made among the jobs on an equitable basis, for example, productive labor costs. The amount so allocated is entered under Other Direct Costs on the estimate and cost sheet. Where productive labor is employed on numerous jobs simultaneously and it would be impracticable to charge it directly to the jobs in question, it may be advisable for convenience to group it with indirect labor.

The theory of accounting applied to indirect labor should also be applied to indirect materials. Whatever accounting theory or methods are used, it is important that the materials and labor costs entered on the cost sheets and the general ledger accounts covering these costs be consistently maintained.

Upon the completion of the job the cost sheets are extracted and filed numerically. As labor reports cover various jobs they are filed chronologically, which permits convenient reference. At the end of the month, all jobs completed and billed during the month are summarized as follows:

SALES AND COSTS SUMMARY

		COSTS				
Job No.	Sales	Materials	Labor	Other Direct Costs	Total Costs	Gross Profits

The total of Sales should agree with Sales account in the general ledger. The total of Materials costs is deducted from the total of purchases and inventory at beginning to arrive at the book inventory at the end of the month, which should be verified periodically by a physical inventory. Minor differences may be adjusted, but large discrepancies should be the subject of further inquiry inasmuch as large quantities of merchandise may be off the premises and out on jobs. The total Labor costs should be reconciled with the labor account in the general ledger and adjustments provided for accrued and deferred labor as previously mentioned. The total of Other Direct Costs should agree and reconcile with the general ledger accounts concerned. Gross profits should agree with the operating statement; any variations in the normal gross profit percentage should be traced and accounted for.

The importance of a cost system, which makes it practically indispensable to carpet and linoleum contractors, is emphasized by the following facts and information which a contractor is primarily interested in and seeks:

1. A basis for cost study:
   a. Comparison of actual costs with estimated costs
   b. Comparison of actual costs with standard costs
      Note: Estimated costs merely attempt to predetermine actual costs and are subject to constant revision as they are checked by actual results. Standard costs represents an attempt to discover what costs ought to be and are not intended to reflect actual costs, nor are they necessarily revised when they fail to coincide with actual results
   c. An index as to the efficiency of various mechanics by observing under Work Done how many installations a certain mechanic performed in a given time, which is important knowledge for estimating bids
   d. Shows up idle time vividly
   e. Affords close material scrutiny and reduces waste due to faulty cutting
   f. Basis for determining whether it may be cheaper to subcontract part or all of some jobs elsewhere
   g. Establishment of equitable wage rates
   h. Promotes general efficiency—suggestions may be inferred for reducing costs
2. Systematizes routine operations:
   a. Aids in planning distribution of jobs among mechanics
   b. Installation instructions and floor plans avoids delays
   c. Time guides permits smoothness of operations, such as date to measure, date to lay, and delivery date of merchandise on order
   d. Standardizes movements of labor and materials creating efficiency of routine operations

3. **Aids in selling:**
   a. Useful for estimating future jobs
   b. Enables determination or manner of salesmen's compensation especially where arrangements may call for a percentage of the gross profits on their contracts
   c. Provides accurate information as to costs and performances as a basis for sales talks
4. For billing purposes:
   a. Cost sheets serve to follow up all jobs for billing purposes
   b. As a billing guide where contract calls for billing as units are completed, thereby anticipates collections
   c. Practically indispensable for cost-plus basis of billing and accurate costs assures markup
5. Financial purposes:
   a. Permits greater accuracy of operating statement and balance sheet by supplying book inventory of merchandise on hand, exact instead of estimated deferred and accrued labor figures, and definite facts which are usually lacking when preparing financial statements merely from general books
   b. Analysis of gross profits by individual jobs
   c. Closer scrutiny of materials tends toward a minimum stock, thereby releasing additional working capital
   d. Aids in obtaining credit from banks and creditors
   e. Preparation of budgets which is important where volume of contracts obtained is not uniform
   f. Formulation of executive policies as to types and methods of installations for any particular field by studying profitable and nonprofitiable jobs

Accounts Required

The development of the accounts required by a contractor would necessarily depend upon the nature and extent of the business, the specific methods of operations, and types of installations. Generally the main divisions would include:

Prime Costs:

Purchases:

Hard-Surface goods: linoleum, inlaid, wall linoleum, borders, asphalt and lino tile, fibreized mastic, etc.

Soft goods: broadloom, carpeting, rugs, etc.

Miscellaneous: cement, nosings, felt, sewing, binding, etc.

Labor: mechanics, helpers, sewers, etc.

Operating Expenses:

Warehouse and Delivery—compensation: receiving and shipping clerks, other inside help, chaffeurs and helpers. Warehouse occupancy expenses: rent (or equivalent if owned), light, heat, and power; repairs and other maintenance expenses; taxes, insurance, depreciation warehouse fixtures and equipment, etc. Handling and other miscellaneous warehouse expenses, mechanics' expenses. Delivery expenses: all truck expenses and depreciation, costs of hired trucks, freight and cartage out, packing and shipping supplies, etc.

Selling—compensation: salaries and commissions of inside and outside salesmen. Advertising expenses: advertisements, subscriptions to report services, listings, etc. Car expenses: all car expenses and depreciation of car owned, car allowances. Showroom expenses: occupancy, etc. Other selling expenses: traveling, entertaining, etc.

General and Administrative—compensation: officers, executives, accounting and general office. Office occupancy expenses: rent, light and heat, insurance, depreciation of office furniture and fixture, etc. Office expenses: stationery, printing and postage, telephone and telegraph, professional fees, insurance (except on warehouse and trucks). Other general expense: interest, taxes (except on warehouse and income tax), bad debts, miscellaneous expenses.

Equipment Account:

The equipment used by contractors is comparatively negligible and consists of: sewing machines, linoleum rollers, sandbags, hand trucks, and tools (if small in amount charge to expenses).

Inventories:

Inasmuch as the contracting field is merely an installation business and no fabrication work is done to the merchandise, there is no classification as to raw materials, goods in process, and finished goods. The merchandise inventory includes all materials and accessories wherever located which may be in warehouse, or out on jobs in process of installation. Material in cut form for job installation is valued as if it were uncut.

Deferred Labor:

This may be added to cost of goods on jobs in progress. It is sometimes shown separately on inventory sheets but included in one amount for merchandise inventory; or it is shown separately on balance sheet and then added to materials merchandise inventory. The latter method is preferable.

Operating Statements

Contractors are primarily interested in (1) gross profits (amount and rate as a check on estimating bids) and (2) average total operating expenses (percentage to average sales) to determine minimum volume necessary to cover constant and fixed overhead, and where unusually large jobs can be obtained to materially reduce the operating expense ratio.

The operating statement herewith shown applies to sole contractors. Other departments operated should be segregated separately.

PROFIT AND LOSS STATEMENT *

SALES—Net—Contracts

Cost of Goods Sold

Merchandise
Inventory at Beginning
Purchases—Hard Goods
—Soft Goods
—Miscellaneous
Freight In
Total Purchases
Less: Rebates
Discounts on Purchases
Net Purchases
Total Merchandise Available For Sale
Less: Merchandise Inventory at End
Cost of Materials Consumed
Labor
Total Cost of Goods Sold

GROSS PROFIT ON SALES

Operating Expenses

Warehouse and Delivery:
Warehouse:
Salaries
Rent
Light, Heat, Power
Insurance
Repairs and Maintenance
Taxes
Depreciation—Warehouse Fixtures and Improvements
Depreciation—Equipment
Packing and Shipping Supplies
Mechanics' Expenses
Miscellaneous Warehouse Expenses
Delivery:
Salaries

* Where a cost system is used, interim operating statements are prepared along the following outline:

Sales
Cost of Sales:
Materials
Labor
Total
Gross Profit
Operating Expenses (Itemized)
Net Profit

Truck Expenses:
- Gas and Oil
- Garage Rent
- Repairs and Maintenance
- Insurance
- Licenses
- Depreciation—Trucks

Hired Trucks
Freight and Cartage Out

Selling:
- Salaries—Salesmen
- Commissions—Inside Salesmen
- Commissions—Outside Salesmen
- Showroom Expenses
- Advertising—Subscriptions to Reports Services
  - —Ads, listings, etc.
  - —Miscellaneous
- Traveling Expenses
- Entertaining Expenses
- Automobile Expenses (If substantial itemize details)
- Depreciation—Automobile
- Car Allowances—Salesmen
- Miscellaneous Selling Expenses

General and Administrative:
- Officers' Salaries
- Executives' Salaries
- General Office Salaries
- Stationery, Printing and Postage
- Rent—Office
- Telephone and Telegraph
- Legal and Accounting
- Light and Heat—Office
- Miscellaneous Office Expenses
- Insurance (Except Warehouse and Automobiles)
- Depreciation—Office Furniture and Fixtures
- Taxes (Except Income Tax, Warehouse)
- Interest
- Bad Debts
- Miscellaneous Expenses

TOTAL OPERATING EXPENSES
NET PROFIT

Trade discounts are deducted from material costs and from purchases in the operating statement. Cash discounts are treated as other income. Inasmuch as rebates are not definitely known until a later date, they are usually estimated monthly and treated as other income on monthly reports, but should be deducted from purchases on the annual report to reflect true net costs.

BALANCE SHEET

ASSETS

Current Assets:
Cash in Banks
Cash on Hand
Accounts Receivable
Less: Reserve for Bad Debts
Notes receivable
Inventory:
Merchandise
Deferred Labor in Process
Accrued Rebates Receivable
Loans and Exchanges
Total Current Assets
Fixed Assets:
Warehouse Fixtures and Improvements
Less: Reserve for Depreciation
Equipment
Less: Reserve for Depreciation
Office Furniture and Fixtures
Less: Reserve for Depreciation
Trucks and Autos
Less: Reserve for Depreciation
Total Fixed Assets
Other Assets:
Deposits Receivable
Due From Salesmen
Unexpired Insurance
Prepaid Expenses
Total Other Assets
TOTAL ASSETS

LIABILITIES AND CAPITAL

Current Liabilities:
Accounts Payable—Trade
Accounts Payable—Other
Notes Payable—Trade
Notes Payable—Banks
Loans Payable
Accrued Taxes Payable
Accrued Labor and Expenses
Total Current Liabilities
Fixed Liabilities:
Mortgages Payable (if any)
Deferred Items:
Deposits on Uncompleted Contracts
Reserve for Uncompleted Contracts (if any)
Capital:
Capital Stock
Surplus
Net Worth
TOTAL LIABILITIES AND CAPITAL

Occasionally, a large contract may be practically completed at the close of an accounting period. In order that the financial statements may reflect the operations for the period more accurately, the entire contract would be included in the sales for the period and the percentage of the entire contract still uncompleted extracted and credited to a deferred income account, such as the Reserve for Uncompleted Contracts. This is the exception rather than the rule.

Where deposits are received on contracts in advance of the performance of the job, they should be shown as Deposits on Uncompleted Contracts on the liability side of the balance sheet and not as a deduction from accounts receivable, so that the full amount due from customers will be shown.

Bookkeeping Methods

The usual double-entry set of books is kept. Because of the risky nature of the contracting business, especially on bulk sum contracts where unforseen contingencies may arise, a cost system is practically indispensable. The cost records are usually not recorded on the regular set of books, but if accurately kept can be made to "tie in" with the general ledger accounts. These have been described in the discussion of the cost system.

Perpetual inventory records are usually maintained. All rolls, bales, carpeting, rugs, etc., should be tagged with yardage noted, and cut goods annotated thereon to show balances remaining and to facilitate stock taking.

ACCOUNTING FOR CEMETERIES

By
HENRY LIEBERMAN*

BRIEF DESCRIPTION OF BUSINESS

There are several types of cemeteries. They may be classified as commercial, association, fraternal, religious, municipal, and family cemeteries. Generally, only the commercial type is interested in profit making.

In the association type, management is under the supervision of the board of directors who are appointed by the members of the association. The members own lot burial permits. They are entitled to votes based on the size and number of the lots. There are situations where the land has been obtained by the association which issues a form of written indebtedness, such as certificates of indebtedness. In these cases, some voting power is usually allotted to the certificates.

The fraternal cemetery is owned by a benevolent or fraternal society. Since the society is organized for mutual benefit, the cemetery accounts are an integral part of the society's records.

The religious cemetery is usually affiliated with a religious body which is the parent organization. Records kept by the religious organization include the cemetery accounts.

The municipal cemetery is maintained by the town or city when no other organization will care for the burial plots.

The family cemetery, usually located on an estate, is purely the concern of the particular family.

In the commercial, association, and municipal cemeteries, statements of receipts and expenditures are prepared and examined by external auditors. Detailed records are kept of assets and liabilities, income, and expenses. Receipts flow from the sale of burial rights, monuments, and for services rendered for interments, perpetual care, annual care, gardening and other services. Good in-

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ternal control is essential for the proper recording of these transactions.

Theory of Accounts

The management of a cemetery rarely changes. The executive staff generally consists of the superintendent, his assistants, and the office staff. Laborers and handy men are under the supervision of foremen.

The chart of organization determines the responsibilities of each department. In a small cemetery the functions of each department are not clearly defined, and laborers are often assigned to several departments. It is, therefore, necessary to determine the extent of overlapping. This problem is especially important from the viewpoint of cost distribution.

The following information is required:

Sale of Burial Plots and Cost of Land

Relation of sale to allocation of land costs
Portion of sale which is funded for maintenance
Method of reporting sales; accrual basis, installment method
Amount to be considered as profit or loss on sale

Interment Income and Costs

Relation of income to material, labor, and overhead, such as maintenance, taxes, insurance, cemetery office, etc.
Distribution of overhead, sometimes on the basis of direct labor hours, sometimes on the basis of revenue percentages
Cost per interment
Excess of income over costs

Perpetual Care Revenue and Costs

Relation of trust income to costs
Cost of service and apportionment of other expenses
Treatment of income deficiencies and excesses in regard to trust corpus

Other Income and Expenses

Relation of monument and foundation sales to costs; cubic feet of foundations constructed
Relation of special care to costs; number of graves cared for
Excess of income over expenses

Funds Required by Statute

Relation of permanent and current maintenance to sale of land
Percentage of sale to be set aside as fund

Accounts Required

Assets, Liabilities, and Capital

1. Advances to salesmen
2. Accounts receivable
3. Automobile equipment
4. Automobile obligations
5. Capital stock
6. Cash
7. Cemetery lots
8. Cemetery site
9. Commissions, còntingent
10. Contracts
11. Equipment
    - (a) Mowers and tools
    - (b) Lowering devices, etc.
12. Furniture and fixtures
    - (a) Office
    - (b) Cemetery
13. Improvements
14. Investments (for perpetual or general care)
    - (a) Bonds
    - (b) Mortgages
    - (c) Municipal
15. Lot sales (burial rights)
16. Mortgages payable
17. Mortgages receivable
18. Notes receivable
19. Options
20. Perpetual-care fund
21. Perpetual-care fund reserve
22. Petty cash
23. Profit and loss account
24. Realized profits
25. Reserve for development
26. Reserve for perpetual care
27. Reserve for depreciation
28. Slate vaults
29. Surplus
30. Suspense
31. Trustee accounts
32. Trust funds—perpetual care, general maintenance
33. Unrealized profits
34. Voucher accounts

Revenue and Expenses

50. Advertising
51. Auditing
52. Automobile supplies and expenses
53. Automobile expenses for each car
54. Beautification
55. Cancellation profits
56. Care of lots, general: cost
57. Care of lots, general: income
58. Care of lots, annual: cost
59. Care of lots, annual: income
60. Care, perpetual
61. Cemetery expense
62. Charity
63. Care of monuments
64. Commissions
65. Decorations and devices
66. Depreciation
67. Discounts
68. Endowments, income from
69. Foundations, cost
70. Foundations, income
71. General expenses
72. Greenhouse expense
73. Insurance: fire, hurricane, liability, life
74. Interest paid
75. Interest received
76. Interments, cost
77. Interments, income
78. Legal expenses
79. Light and water
80. Maintenance
81. Management
82. Miscellaneous income
83. Miscellaneous expense
84. Office payroll
85. Office supplies and expense
86. Postage
87. Receiving vault: income
88. Receiving vault: expenses
89. Removals: cost
90. Removals: income
91. Rent
92. Repairs
93. Salaries
94. Selling expenses, automobile licenses, etc.
95. Subscriptions
96. Teaming
97. Telegraph and telephone
98. Travel

Operating Statements

Condensed Statement of Assets and Liabilities

Assets

Cash
- Cash in banks
- Petty cash

Contracts
- Contracts: Unpaid balances on lots sold on installment plan
- *Less:* Amount included in the above which will be payable to perpetual-care fund

Notes receivable—in payment for lots

Accounts receivable—
- For interments, etc.
- From salesmen for special advances

Equipment	*Cost*	*Depreciation*	*Net*
Motor equipment			
Cemetery			
Furniture and fixtures			
Furniture at cemetery			

Inventories
- Vaults on hand at cost

Cemetery lots
- Cost of developed portion when completed
- *Less:* estimated expenditures still to be made
- *Less:* cost of lots sold to date
- *Add:* Cost of undeveloped area

New development: preliminary surveys of undeveloped portion

Prepaid expenses: unexpired insurance

Liabilities

Current liabilities
- Accounts payable for lots repurchased
- Voucher account: current bills
- Notes payable
- Provision for income and other taxes
  - Total current liabilities

Other liabilities
- Options: deposits received from prospective purchasers
- Contingent commissions payable as the "contracts" are collected
- *Less:* advances already made to salesmen on account of above
- Perpetual-care fund; amount due to the fund from collections made
- Unrealized profits on outstanding contracts (see contra-asset)

Net Worth
- Capital stock outstanding (authorized XXXX shares of $100.00 each)
- Surplus: Balance at beginning of year
  - Add profit for the year
  - Less dividends paid

Total liabilities and capital

STATEMENT OF PROFIT AND LOSS FOR THE YEAR

Income
- Realized profits on sales
- Profits from cancellations
- Interest collected
- Interments
- Foundations
- Markers
- Special care
- Miscellaneous income
  - Total gross income

Expenses
- Maintenance
  - Cemetery expense
  - Electric current
  - Beautification
  - Depreciation
    - Total maintenance expense
- Selling Expenses
  - Advertising
  - Automobile expense
  - Automobile depreciation
  - Commissions
  - Discounts
  - Life insurance
  - Removals
  - Selling expenses
    - Total selling expenses
- General Expenses
  - Auditing
  - Automobile—office car
  - Charity
  - Depreciation
  - General expense
  - Insurance
  - Interest paid
  - Legal expense
  - Management
  - Office payroll
  - Office supplies, etc.
  - Postage
  - Rent
  - Subscriptions
  - Taxes and licenses
  - Telegrams and telephones
  - Travel
    - Total general expenses

Extraordinary Expenses
Advances written off
Loss on equipment destroyed
Total extraordinary expense
Total expenses
Profit from operations
Less: provision for federal income tax
Balance, carried to Surplus account

Bookkeeping Methods

The forms and books arranged to suit cemeteries, in addition to those generally used in industry, are as follows:

Report to Superintendent of Sales Made. This report is made by the treasurer and authorizes the superintendent to remove the plot or lot from his inventory.

Lot Record. All lots are listed. This record shows the final disposition of every lot. Prior to operations, the lot number, number of graves, area in square feet, and list price are entered. After a sale, the name of the buyer is entered, together with the number of graves sold, sales price, sale number, and deed number.

Interment Record. This book is a specially prepared bound book. The left-hand side contains the interment burial permit number, name of deceased, place of birth, last residence, age, occupation, sex, date and cause of death. On the right side are shown the date of interment, grave number and section, location lot, lot-book page, fee, name of undertaker, physician, and owner of lot.

Burial Request and Report. This record contains two parts. The first part is the request for burial which contains the name, date, lot, section, time of burial, cause and day of death, age, marital status, residence, occupation, and attending physician. The second part is the report by the superintendent concerning the burial.

Trial Balance. This book contains cut leaves for monthly use. However, each month four columns, instead of two columns, are filled in. The first two columns indicate the monthly net changes. The last two columns indicate the balance of the account at the date of the trial balance.

Weekly Payroll Record. This weekly record is arranged so that the summary of daily wages can be posted according to function, such as foundations, interments, flowers, nursery, etc.

ACCOUNTING FOR A CHAIN OF RETAIL SHOE STORES

By

ADOLPH SCHOEN *

BRIEF DESCRIPTION OF BUSINESS

Retail shoe chains are organizations operating two or more similar stores under a common management. These chains sell various types of footwear and accessories. The term "footwear" includes shoes, slippers, rubbers, galoshes, boots, etc. "Accessories" embraces such merchandise as hosiery, handbags, shoe bags, shoe trees, laces, and polishes.

Some chain shoe stores are part of an organization which also manufactures all the merchandise sold in its stores. Others with certain factory ties may purchase most of the merchandise they require in the open market. Still other chain stores have no manufacturing connections and buy all their merchandise from various manufacturers and suppliers.

Each store generally has a selling staff which consists of a manager and one or more salesmen. It may also have a cashier, bootblack, and other personnel. The cash receipts of the store are deposited daily in an individual bank account. Withdrawals from this account are made only by means of check drawn at the main office. The store manager sends daily reports to the main office, together with memoranda of various kinds, for example, duplicate deposit slips, sales checks, receiving memos, and requisitions.

The main office exercises close supervision over the stores' activities. Usually it is headquarters for such functions as purchasing, merchandising, advertising, financing, accounting, warehousing, and general administration.

THEORY OF ACCOUNTS

Accepted methods of accounting for chain shoe store organizations naturally vary. Generally, however, the system should yield

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the following essential information: (1) accurate determination of income, costs, and expenses, for each type of sale, and for each store, and (2) accurate inventory control to increase turnover, detect shortages, and calculate losses involving inventory.

Many large chains as well as department stores find it advantageous to determine inventory values and cost of sales by the retail method of inventory, which is recognized by the Bureau of Internal Revenue. Its use by retail businesses for tax purposes is permissible.

Daily inventories valued at selling price can be determined from books of account employing this system. Markup and markdown accounts are used. By markup is meant the difference between original selling price and cost. Markdown is the difference between original selling price and subsequently reduced selling price. The use of the figures in the books of account in conjunction with the standard form for inventory calculation by the retail method, illustrated below, will yield inventory values at cost of goods sold. Goods carrying different percentages of gross profit should be valued separately. Inventory values so obtained should be checked against physical inventories periodically taken which have been priced and computed at retail. Another basis of comparison is the retail value of inventory shown on the daily report of each store. Material differences should be thoroughly investigated and books of account adjusted where necessary.

Certain small chains and individual stores determine their daily and monthly cost of sales by the relatively simple means of costing each individual sale and adding these costs daily. This method will give accurate results when carefully followed. It has the additional advantage of providing a means for determining the value at cost of the store inventory at any time, without the necessity of taking physical inventory. Periodical physical inventories should be taken, however, to check the accuracy of the book figures. This method is not usually employed by large chains carrying a variety of merchandise at varied costs, largely because of the detail involved.

Other small chains and individual stores record their daily purchases at cost and their sales in the ordinary manner and therefore can ascertain cost of sales only by taking inventory at cost.

STANDARD INVENTORY SUMMARY SHEET—RETAIL METHOD*

	(1) Cost	(2) Retail	(3) Markup	(4) % of Markup
1. Opening Inventory (Lines 11 and 9 of Preceding Period....	$...........	$...........	$...........	...........%
2. Purchases	$...........	$...........	$...........	...........%
3. Freight, Expressage, Cartage, etc. Inward........................	$...........			
4. Additional Markups, less Cancellations		$...........	$...........	
5. Total of Inventory, plus Additions	$...........	$...........	$...........	...........%
6. Net Sales		$...........		
7. Markdowns, less Cancellations		$...........		
8. Total Retail Deduction (Sum of items 6 and 7)..................		$...........		
9. Resultant Retail Inventory (Item 5, column 2 less item 8)....		$...........		
10. Calculation of Cost Percentage:				
a. Total Percentage 100.00%				
b. Percentage of Markup (line 5, column 4).. ....%				
c. Percentage of Cost (a minus b).................. ....%				
11. Cost of Inventory (Item 10-c × Item 9)........................	$...........			
12. Resultant Markup and Percentage (Item 9 minus Item 11)..			$...........	...........%
13. Cost of Merchandise Sold (Difference between cost inventories on lines 5 and 11)........................	$...........			

* This is a standard form for summarizing inventory calculation by the retail method.

Accounts Required

The results expected of the accounting system and the particular requirements of the individual chain must be considered in determining the accounts required.

The following accounts, modified to conform with the special needs of the individual chain, are usually adequate for organizations of medium size:

	Numerical Designation
Assets	*#1 to #99*
Cash in Banks	# 1
Cash in Registers	# 2
Petty Cash Funds	# 3
Accounts Receivable	# 11
Merchandise Inventory—Warehouse	# 20
" " —Store #1	# 21
" " —Store #2 (etc.)	# 22
Deposits Receivable	# 75
Furniture and Fixtures	# 80
Liabilities, Reserves, and Capital	*#100 to #199*
Accounts Payable	#101
Notes Payable	#102
Accrued Expenses Payable	#103
Deposits Received from Customers	#104
Reserve for Depreciation of Furniture and Fixtures	#180
Capital Stock	#190
Surplus	#195
Store Sales	*#200 to #299*
Sales—Store #1	#201
" " #2 (etc.)	#202
Allowances on Sales	#290
Cost of Sales	*#300 to #399*
Merchandise Shipments to Warehouse	#300
" " " Store #1	#301
" " " " #2 (etc.)	#302
Markup Account—Warehouse	#320
" " Store #1	#321
" " " #2 (etc.)	#322
Additional Markup Account—Warehouse	#340
" " " Store #1	#341
" " " " #2 (etc.)	#342

Markdown Account—Warehouse	#360
" " Store #1	#361
" " " #2 (etc.)	#362
Freight, Express, Cartage, etc. Inward—Warehouse	#380
" " " " " —Store #1	#381
" " " " " — " #2 (etc.)	#382
Discounts on Purchases	#395
STORE OPERATING EXPENSES	*#400 to #499*
Operating Expenses—Store #1	#401
" " — " #2 (etc.)	#402
GENERAL AND ADMINISTRATIVE EXPENSES	*#500 to #599*
Salaries—Officers	#501
" —Clerical	#502
Rent	#503
Light	#504
Heat	#505
Water	#506
Telephone and Telegraph	#507
Stationery and Printing	#508
Postage	#509
Auditing Fees	#510
Legal Fees	#511
Travelling Expenses	#512
Repairs to Equipment	#513
Depreciation of Furniture and Fixtures	#514
Federal Old-Age Benefit Taxes	#515
" Unemployment Insurance Taxes	#516
State " " "	#517
OTHER INCOME	*#600 to #699*
Interest Received	#601
DEDUCTIONS FROM INCOME	*#700 to #799*
Interest Paid	#701
PROFIT AND LOSS ACCOUNT	*#801*

Many of the foregoing accounts are set up in the general ledger in columnar fashion.

The following illustration pictures the form of account used for one group, consisting of #1, #2, #3, #11, #75, #80, #104, #180, #290, #395:

Date		Folio	Total	Store #1	Store #2	Store #3	Store #4	Store #5	Store #6	Main Office

Another group of accounts (#20 to #22, #201 to #202, #300 to #302, #320 to #322, #340 to #342, #360 to #362, and #380 to #382) employ the captions below:

Date		Folio	Total	Shoes	Slippers	Rubbers	Galoshes	Boots	Hosiery	Hand Bags	Shoe Bags	Shoe Trees	Laces	Polishes

Store operating expense accounts, 401 to 402, constitute a third group of columnar accounts, using captions shown in detail in the statement of income and expenses illustrated in the succeeding section.

FINANCIAL STATEMENTS

The balance sheet and specimen supporting schedules which follow require comment only with respect to inventory valuation. Other balance sheet items are valued in the usual manner.

Merchandise inventories are valued by the retail inventory method as discussed in the preceding section.

Operating results are summarized in a statement of income and expenses and supporting schedules such as: (1) summary of net sales for each store and in total, (2) summary of cost of sales for each store and in total, (3) administrative expenses, and (4) distribution of administrative expenses.

Illustrated are the statement of income and expenses and the schedule showing distribution of administrative expenses. An important factor to observe is the percentage of gross profit on sales. Variations from standard or normal require study and analysis.

One method of apportioning administrative expense to each

store is illustrated in Schedule 8 of Exhibit B. In this example, the charge is distribution on the basis of number of days operated during period. Thus, if each store were operated the same length of time, the administrative burden would be distributed equally. Frequently, it is necessary to make some modification of this procedure, owing to special factors in the particular situation.

Cash discounts on purchases are treated as a reduction of cost of purchases. At the end of each month the balance in this account is distributed to each store on the basis of cost of goods sold and then closed out to the Markup accounts of each store.

Balance Sheet

Exhibit A

Assets

Current Assets			
Cash in Banks	(Schedule #1)		$...........
Cash in Registers	(" #2)		$...........
Petty Cash Funds	(" #3)		$...........
Accounts Receivable	(" #4)		$...........
Merchandise Inventories	(" #5)		$...........
Total Current Assets			$...........
Other Assets			
Deposits Receivable	(" #6)	$...........	
Furniture and Fixtures— Book Value	(" #7)	$...........	
Total Other Assets			$...........
Total Assets			$...........

Liabilities and Capital

Current Liabilities			
Accounts Payable	(Schedule # 8)		$...........
Notes Payable	(" # 9)		$...........
Accrued Expenses Payable	(" #10)		$...........
Deposits Received from Customers..	(" #11)		$...........
Total Current Liabilities			$...........
Capital Stock		$...........	
Surplus	(Exhibit C)	$...........	
Total Capital Stock and Surplus			$...........
Total Liabilities and Capital			$...........

Exhibit A
Schedule #5

Merchandise Inventories

Description	Total	Warehouse	Store #1	Store #2	Store #3	Store #4	Store #5	Store #6
Shoes	$........	$........	$........	$........	$........	$........	$........	$........
Slippers	....	....	....	....	....	....	....	....
Rubbers	....	....	....	....	....	....	....	....
Galoshes	....	....	....	....	....	....	....	....
Boots	....	....	....	....	....	....	....	....
Hosiery	....	....	....	....	....	....	....	....
Handbags	....	....	....	....	....	....	....	....
Shoe Bags	....	....	....	....	....	....	....	....
Shoe Trees	....	....	....	....	....	....	....	....
Shoe Laces	....	....	....	....	....	....	....	....
Polishes	....	....	....	....	....	....	....	....
TOTAL	$........	$........	$........	$........	$........	$........	$........	$........

Statement of Income and Expenses

Exhibit B

NET SALES	(Schedule #1–)	$...............
COST OF GOODS SOLD	(")	$...............
GROSS PROFIT ON SALES	(")	$...............
STORE OPERATING EXPENSES		$...............
Salaries—Store Managers		....
Salaries—Salesmen		....
Salaries—Other Personnel		....
Rent		....
Light		....
Heat		....
Water		....
Advertising		....
Window Display		....
Insurance		....
Telephone and Telegraph		....
Stationery		....
Postage		....
Delivery Costs		....
Wrapping Material		....
Shoe Repairs and Repair Supplies		....
Supper Money		....
Time Lock Service		....
Patrol Service		....
Window Cleaning		....
Rubbish Removal		....
Repairs to Eqiupment		....
Depreciation of Furniture and Fixtures		....
Sign Licenses		....

Store Mercantile Licenses and Taxes	....
Federal Old-Age Benefit Taxes	....
Federal Unemployment Insurance Taxes	....
State Unemployment Insurance Taxes	....
General Store Operating Expenses	....
TOTAL STORE OPERATING EXPENSES	$................
OPERATING PROFIT OR LOSS—BEFORE ADMINISTRATIVE EXPENSES	$................
ADMINISTRATIVE EXPENSES (Schedule #)	$................
NET PROFIT OR LOSS	$................

PERCENTAGE OF GROSS PROFIT ON SALES	%
" " STORE OPERATING EXPENSES	%
" " OPERATING PROFIT OR LOSS BEFORE ADMINISTRATIVE EXPENSE	%
" " ADMINISTRATIVE EXPENSES	%
" " NET PROFIT OR LOSS	%

DISTRIBUTION OF ADMINISTRATIVE EXPENSES Schedule #8

Store	Period From	Operated To	Percentage of Report Period	Administrative Percentage	Charge Amount
# 1	....	....	............%	............%	$............
# 2	....	....	............%	............%	$............
# 3	....	....	............%	............%	$............
# 4	....	....	............%	............%	$............
# 5	....	....	............%	............%	$............
# 6	....	....	............%	............%	$............
TOTAL				100.00%	$............

BOOKKEEPING METHODS

Forms and merchandise records are given consideration herein as they play an important part in the shoe chain accounting system. They require careful planning to conform to the needs of the individual chain. Certain of these, commonly used in many other fields of business, require mention, namely: merchandise requisition, merchandise purchase order, merchandise receiving memorandum, merchandise return memorandum, and petty cash slip. Of the forms peculiar to chain shoe stores, those most frequently encountered are described below.

The Size Sheet is used in taking inventory of footwear. It pro-

vides for recording such information as description, material, last, heel, stock number, quantities, sizes, and widths.

The Transfer Memo is a record of the transfer of merchandise between stores, and between warehouse and stores made by the unit shipping the merchandise. All transfers require main office authorization, and are entered in the transfer book.

The Markup Memo is a record showing the increases in selling prices of specific items of merchandise. It has such information as description of merchandise, stock number, quantity, store number, last retail price, new retail price, and net amount of markup. The credit, when periodically journalized, is made to the Additional Markup account, the debit to Merchandise Shipments.

The Markup Cancellation is a form which records the cancellation of all or part of additional markups. The form and its uses are similar to that of the markup memo although its effect is opposite.

The Markdown Memo contains the record of decreases below original selling prices. It embodies information similar to the Markup Memo. The Markdown account is charged and Merchandise Shipments is credited.

The Markdown Cancellation records partial and complete cancellation of markdowns. Its form is similar to that of the markdown memo. The number of the original markdown memo should be given.

The Cash Sales and Charge Sales Slips record full information concerning each sale, including name and address of customer, salesman, description of merchandise, stock number, size, width, and price.

The Cash Sales Refund records the return by customers of merchandise sold for cash, and the refund of same.

The Credit Slip is used to record return by customers of merchandise sold on credit terms.

The Allowance Slip is used to record allowances made to the customer by the store manager, usually because of a claim of unsatisfactory wear.

The Deposit Received Memo is used to record receipt of deposits from customers on merchandise to be called for at a later date.

The Deposit Refunded Memo is used to record the return of deposits to customers. It provides for the number of the original Deposit Received Slip, in addition to other full details.

The Remittance from Charge Account is used to record funds received from charge accounts receivable. Information noted includes name and address of customer, details concerning account paid, whether check or cash, etc.

The above forms are usually printed in duplicate or triplicate. One copy is sent to the main office, one is retained by the store, and a third, when necessary, is given to the customer, or to another store. Full information concerning the transaction is provided for on each form.

Daily Report of Store is a summary of the transactions of each store for the day and is prepared by the store manager. It is printed in duplicate and numbered. The original is sent to the main office, the duplicate being retained by the store. The daily report includes:

1. A summary, in terms of values and quantities, of classified gross sales, sales returns, and net sales.
2. A reconciliation of cash and sales as follows:

Net Sales	$...............	
Deposits Received	$...............	
Receipts from Charge Accounts	$...............	
Allowances		$...............
Deposits Returned		$...............
Charge Sales		$...............
Bank Deposit		$...............
TOTAL	$...............	$...............

3. Opening and closing register readings where cash registers are used.
4. A reconciliation of petty cash funds.
5. A perpetual inventory at retail as follows:

	Quantity	Value
Inventory—Opening of Store	....	$...............
Received —Memo #...............	....	$...............
" — " #...............	....	$...............
Markup — " #...............	xxxxxxxx	$...............
Markdown Cancell. #...............	xxxxxxxx	$...............
TOTAL	....	$...............

Net Sales		....	$...............
Returned —Memo	#...............	....	$...............
Transferred— "	#...............	....	$...............
Markdown "	#...............	xxxxxxxx	$...............
Markup Cancell.	#...............	xxxxxxxx	$...............
TOTALS		....	$...............
Inventory—Closing of Store		....	$...............

The following are books of original entry:

Store Daily Sales Book is used to record the sales of each store. The sales are entered on individual sheets from the store daily reports. Columns are provided for entry of full information.

The Cash Receipt Book contains the main office cash receipts. Receipts consist principally of funds transferred from store bank accounts.

The Cash Disbursement Book is a record of payments by check. Columns are headed to give a full breakdown for posting to the ledger and are analyzed at the end of the month to determine the charge to each store.

The Purchase Book contains sheets which are used for each store separately in entering approved purchase and expense bills. Columns are provided for (1) accounts payable, (2) merchandise shipments (separate columns for each kind of merchandise in terms of Retail Value and Quantity), (3) freight inward, (4) markup account (separate column for each kind of merchandise), (5) store operating expense, and (6) administrative expense.

Purchase Return Book is a record of purchase return memos. Separate sheets are used for each store. Columns are the same as those found in the purchase book.

The Transfer Book contains transfer memos. A separate sheet is used for each store that transfers merchandise to other units. Columns are set up for merchandise shipments of each kind in terms of retail value and quantity.

The Journal is used in the usual manner for opening, adjusting, and closing entries. It is also used for summary entries of Additional Markups, Additional Markup Cancellations, Markdowns, and Markdown Cancellations.

From the foregoing books and records of original entry, postings are made to the usual group of secondary ledgers. The in-

ventory records include in certain instances a perpetual inventory of each item of merchandise for each store or unit, with complete description, cost, source of supply, selling price, transactions, balance on hand, etc. Inventory records of footwear are especially valuable when designed to show exact sizes and widths ordered, received, sold, and on hand.

ACCOUNTING FOR CHAIN STORES

By

J. A. Laws, Jr.*

A universally accepted definition of the term "chain store" is "one of a group of stores (usually four or more) owned and operated by one company, individual, or partnership." Certain characteristics are common to most chain stores. They are engaged in the business of buying, and selling at retail, various types of merchandise; they confine their selling efforts to consumer lines having a large potential volume; they own little or no real estate, and conduct their operations on leased premises; they sell, under their private brands, many lines of merchandise which are purchased directly from manufacturers; they do not manufacture any of the merchandise they sell. While these are characteristics common to most chain stores, some chain store companies manufacture all or part of the products sold; some process and package some of the lines handled; some sell at wholesale as well as at retail; some operate on owned premises. Some chains own a controlling interest in manufacturing and processing plants from which they buy, and others contract for the entire output of small manufacturing plants.

The following outlines show the manner in which chain store management usually divides the administrative functions of the business:

EXECUTIVE HEAD

Operations	*Merchandising*
Accounting and Statistical	Advertising and Display
Budgets	Buying
Credits and Collections	Leases and Locations
Expense Control	Merchandise Control
Finance	Personnel—Sales
Insurance	Pricing
Personnel—Other than Sales	Sales
Taxes	

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A chain store organization chart generally will appear as follows:

ORGANIZATION CHART

Executives—Central Office
Division or Area Managers
District Supervisors
Local Store Managers

Since the various units of a chain store organization are usually spread over a wide geographical area, the top management of such an organization is considerably removed from the local operations. As a result, local chain store managers are generally required to operate under standardized policies, set by the management, as to selling prices, advertising, display, credit terms, adjustment policy, and type of merchandise sold. Considerable latitude as to other matters is usually permitted.

Theory of Accounts

In chain store organizations, it is common practice for all accounting to be handled in the central office, and accounts are kept to show the value of the assets in each retail unit as well as the operating results of each retail unit. The individual retail units send to the central office daily reports of sales, cash receipts and disbursements, receipts of merchandise, deposits of cash, and other information.

Cash receipts may be deposited intact daily or local bills may be paid out of such receipts when substantiated by properly receipted invoices and the balance deposited daily. Some systems provide for a "central office" local bank account for each retail unit in which all cash receipts are deposited intact each day and only duly authorized persons in the central office may sign checks drawn on such accounts. There is also a local "operating" bank account on which the local manager and assistant manager may write checks in payment of local bills. Usually deposits in the operating bank account consist of reimbursing checks sent from the central office.

In recent years several companies have modified their systems so that the local operating account is eliminated and the local manager and assistant manager are given authority to draw checks, limited to a stated maximum, on the central office account. While this plan weakens one phase of the system of internal check, it elim-

inates a considerable amount of work and some bank service charges.

If sales are made on the instalment plan, the retail unit keeps the accounts receivable records locally with the central office keeping only control accounts. (In some cases a duplicate set of accounts receivable records are kept at the central office for the purpose of checking on credit policies and terms and to permit a closer check on collection efforts. This plan also eliminates the work of monthly trial balances and aging schedules in the offices of the retail units.)

Broadly speaking, the accounting systems for chain stores are designed to give the following information:

1. The cost of operating the central office
2. The cost of operating central warehouses or distributing points
3. The sales, cost of sales, gross profit, operating expenses, and net operating profit of each retail unit
4. Information which discloses inventory losses in retail units and central warehouses
   a. Some chains use the retail inventory method successfully for this purpose, but this method is usually confined to chains selling one or a very small number of related lines of merchandise and those operating very large units.
   b. Another method sometimes used for this purpose is to obtain gross profit by departments or gross profit for the retail unit as a whole and to compare the results obtained by each retail unit with those of other retail units having the same selling price classification.
5. General statistical information as to sales and other information covering the various operations broken down for use of the management in directing sales efforts, controlling operating expenses, budgeting future operations, etc.

In addition to the universal requirements of any accounting system, the above items of information are necessary in order to give the financial position of the company at fixed dates and the net results of operations for stated periods.

Accounts Required

Three distinct classifications of accounts generally result from the origin of the transactions: central office, central warehouses or distributing points, and retail units.

Each of the above classifications represents a particular function of the business. The accounting system is developed so as to disclose properly the cost of performing these functions and to obtain other information relating to sales, inventories, etc.

Central Office Accounts

For the purpose of controlling costs, the central office of the large companies is usually divided into departments by functions. The following department classifications will apply to the central office of a majority of the large chain store organizations:

Accounting and Statistical	Merchandise Control
Advertising	Payroll
Buying	Printing
Equipment and Supplies	Real Estate (Leases)
Executive (Administrative)	Sales Promotion
Filing	Tax
Insurance	Traffic
Legal	Typing
Mailing	

The accounting system breaks down the expenses of each of the departments of the central office into various account classifications along the following lines (in small companies the expense of operating the central office is generally shown by account classification and not by departments) :

Amortization of Leasehold Improvements	Repairs
Depreciation	Salaries and Wages
Donations	Stationery and Supplies
Heat	Sundry
Light, Power, and Water	Taxes
Postage	Telephone and Telegraph
Rent	Travel

Monthly reports for each department are compiled to show the expenses by the above general account classifications on a comparative basis, and the ratio of each expense item to sales or some other basic figure may also be shown.

The total expense of operating the central office is distributed to the retail outlets, using as a basis for apportionment, in practically all cases, either the net sales or the cost of sales.

This distribution of total central office expense is made for the purpose of arriving at a net operating profit for each retail unit after all charges except Other Income and Expense, as well as to provide information necessary for the preparation of state income tax returns. This method presumes, of course, that all functions performed in the central office are for the benefit of the individual

retail units and thereby relieves them of the cost of incurring these expenses locally.

Certain financial income and expense accounts and income tax accounts, which are not apportioned to retail units, appear on the consolidated Profit and Loss account as Other Income and Expense. These accounts generally include the following:

Interest Earned	Amortization of Debt Expense
Miscellaneous Income	Interest Expense
Cash Discount on Purchases	Miscellaneous Expense
	Provision for Federal and State Income Taxes

(Accountants are not in agreement on the manner in which cash discount on purchases should be handled. Some accountants prefer to handle this item as financial income, while others desire to treat it as a reduction of cost of goods sold.)

Central Warehouse Accounts

In central warehouses the operating expenses generally are divided into two major classifications: (1) controllable expenses, that is those controllable by the warehouse manager, and (2) noncontrollable expenses, that is those controllable by the central office which include fixed items of expense.

The accounting system which is designed to record the various transactions serves the primary purpose of controlling operating costs. Generally there is no departmentalization of central warehouse accounts except as between Office and Warehousing and Shipping accounts. The various account classifications generally will include the following:

Controllable
- Heat
- Light, Power, and Water
- Postage
- Repairs
- Salaries and Wages
  - Office
  - Warehousing and Shipping
- Shipping Material
- Stationery and Supplies
- Sundry
- Telephone and Telegraph
- Travel

Noncontrollable
- Amortization of Leasehold Improvements
- Depreciation
- Donations
- Express, Freight, and Drayage
  - Merchandise
  - Supplies
- Insurance
- Rent
- Salaries and Wages—Managerial
- Taxes

Monthly reports are usually compiled showing the expenses by the above general account classifications on a comparative basis, and showing the ratio of each item of expense to some standard. Standards used as a basis for measuring the operating efficiency of central warehouses include: (1) number of written lines on orders shipped, (2) number of written lines on invoices and orders recording incoming and outgoing shipments (lines handled), (3) dollar value of merchandise shipped, and (4) tonnage or weight of merchandise shipped.

The total expense of operating a central warehouse, excluding freight, usually is prorated to the various retail units served on the basis of dollar value of merchandise shipped to the units, and is placed on the accounting records of the retail unit as a part of Operating Expense. Freight on incoming and outgoing merchandise usually is prorated to retail units separately from central warehouse expense so that it can be included in determining cost of sales. The practice of including the prorata share of central warehouse expense in the inventory value of merchandise in retail units is not followed by most companies. Generally there is no proration to the central warehouses of a portion of the expense of operating the central office.

In most chain store organizations merchandise is handled through the central warehouse records at cost; the retail inventory method is too expensive to operate in small and medium-sized units, especially where a large number of different lines or items are handled.

The Merchandise (Inventory) account is a very important one. If the merchandise is to be properly controlled, adjustments to this account must be made for price changes, inventory valuations differing from latest cost, etc. Adjustments to book Merchandise account to give effect to price changes, etc., may be recorded on the books by charging or crediting an inventory fluctuation account, and crediting or charging Merchandise account at the time price changes are made; or a memorandum account may be kept for the purpose of reconciling the book inventory with the physical inventory on any inventory date.

Retail Unit Accounts

Since all sales generally are made through the retail units, sales accounts are required in addition to accounts which record and classify the operating expenses.

The amount of sales information required by chain stores varies widely. The use of any method results in obtaining this data in one of two forms, namely, sales in total for each retail unit, or sales by departments (or special groups of merchandise) for each retail unit. Since sales information by departments (or special groups of merchandise) is of limited value in itself, practically all systems designed to obtain this information also obtain cost of sales and gross profit information by departments (or special groups of merchandise). The governing factor as to the amount of information to be obtained is the number of items and types of merchandise handled.

Because of the variety in systems, the one used to obtain total sales in one figure will be discussed. (Any department information would be handled in the same manner, that is, the basic system would be applied to each department.)

The accounts from which sales and gross profit information is obtained generally will include the following:

Cash Sales—Returned Sales, Allowances, and Out-Freight or Postage

Charge Sales—Returned Sales, Allowances, and Out-Freight or Postage

Merchandise Purchases

Express, Freight, and Drayage—Incoming Merchandise

The accounts used to record operating expense generally are divided into two main classifications: (1) controllable expenses, that is, those that are controllable by the local store manager, and (2) noncontrollable expenses, that is, those that are controllable by the central office, including fixed items of expense. The expense accounts usually will include the following:

Controllable
- Bad Debts
- Delivery Expense
- Light, Power, and Water
- Heat
- Postage
- Repairs

Noncontrollable
- Advertising (usually subdivided to show separately the various classes of advertising)
- Amortization of Leasehold Improvements
- Central Office Expense

Controllable	Noncontrollable
Salaries and Wages (usually subdivided to show separately the various classifications of salary expense)	Central Warehouse Expense
Stationery and Supplies	Depreciation
Sundry	Donations
Telephone and Telegraph	Insurance
	Rent
	Salaries—Managerial
	Taxes
	Travel

Some of the above items of expense are paid through the retail unit, while others are paid through the central office and charged directly to the individual unit. Usually separate accounts are kept for each item of expense for each retail unit by the central office. The various accounts are posted monthly from summaries of daily or periodically posted records to obtain accounting information from which is made up a profit and loss accounts for each retail unit for each month. The separate profit and loss accounts are then consolidated to determine that they agree with the control accounts from which the general Operating Profit and Loss account is prepared. It is important to note that the retail units rarely keep a set of books. Generally all transactions consisting principally of reports of sales transactions and disbursements for local expenses are reported daily to the central office. Usually rent and advertising expense bills, as well as all bills for merchandise purchased, are paid through the central office. If merchandise is sold on the installment plan, the retail unit will usually keep its own accounts receivable records.

While all chain store organizations do not find it necessary to give numerical symbols to accounts, this practice is almost universal among the larger organizations. The following illustrates a method of numbering the accounts and also serves further to clarify previous statements in this chapter.

KEY TO ACCOUNT NUMBERS

(Numbered so as to provide for expansion)

ASSETS	1,000 to 5,000
Current Assets	1,000
Fixed Assets	2,000
Prepaid and Deferred	3,000
Other Assets	4,000

STATEMENT OF PROFIT AND LOSS

	Central Office	Central Warehouse	Retail Units	Consolidated
SALES (Less Returns, Allowances, etc.)	—	—	xxxxxx	xxxxxx
COST OF SALES				
Inventory Beginning		xxxxxx	xxxxxx	xxxxxx
Purchases—Transferred		(xxxxxx)	xxxxxx	—
Purchases—Direct		xxxxxx	xxxxxx	xxxxxx
Total		xxxxxx	xxxxxx	xxxxxx
Inventory Ending		xxxxxx	xxxxxx	xxxxxx
Cost of Merchandise Sold		xxx	xxxxxx	xxxxxx
Freight, Express, etc.		—	xxxxx	xxxxx
Shipping Material		xxxx	xxxxx	xxxxx
Inventory Adjustment Account		xxxx	—	xxxx
Defective Merchandise and Repair Costs		xxx	xxx	xxx
Total Cost of Goods Sold		xxxx	xxxxxx	xxxxxx
Gross Profit		(xxxx)	xxxxxx	xxxxxx
OPERATING EXPENSES				
CONTROLLABLE				
Bad Debts	xx	—	xxx	xxx
Light, Power, and Water	xxx	xxx	xxx	xxx
Office Postage	xxx	xxx	xxx	xxx
Office Stationery and Supplies	xxx	xxx	xxx	xxx
Repairs	xxx	xxx	xxx	xxx
Salaries and Wages	xxxxx	xxxxx	xxxxx	xxxxx
Sundry	xxx	xxx	xxx	xxx
Telephone and Telegraph	xxx	xxx	xxx	xxx
Total Controllable Expense	xxxxx	xxxxx	xxxxxx	xxxxx
NONCONTROLLABLE				
Advertising	xx	—	xxxxx	xxxxx
Amortization of Leasehold Improvements	xxx	xxx	xxx	xxx
Depreciation	xxx	xxx	xxx	xxx
Donations	xxx	xxx	xxx	xxx
Insurance	xxxx	—	—	xxxx
Legal Expense	xxxx	—	—	xxxx
Rent and Heat	xxxx	xxxx	xxxxx	xxxxx
Salaries—Managerial	xxxx	xxxx	xxxxx	xxxxx
Sundry	xxx	xxx	xxx	xxx
Taxes	xxxxx	xxxxx	xxxxx	xxxxx
Travel	xxxx	xxxx	xxxx	xxxx
Total Noncontrollable Expense	xxxxx	xxxxx	xxxxxx	xxxxxx
Total Expense before Prorated Expense	xxxxx	xxxxx	xxxxxx	xxxxxx
Net Profit before Prorated Expense	(xxxxx)	(xxxxx)	xxxxx	xxxxx
Central Office Expense	(xxxxx)	—	xxxxx	—
Central Warehouse Expense	—	(xxxxx)	xxxxx	—
Total Prorated Expense	(xxxxx)	(xxxxx)	xxxxx	
Net Profit on Operations	—	—	xxxxx	xxxxx

Note—(xxxx) indicates red figure.

Operating Statements

Chain store management generally desires to obtain information from their operating statements that will show sales and gross profit performance, and enable a determination to be made of the relationship of each major type of expense to sales.

The preceding statement of profit and loss form is designed to give the above information.

To net profit on operations is added cash discount on purchases, interest income, etc. Then deductions are made for interest expenses, amortization of debt expense, provision for Federal and state income taxes, and any other expense item classified as other expense, to arrive at net profit.

The preceding illustration shows, in a general manner, the method of applying central office and central warehouse expenses to the retail units. In actual practice each of the statements shown in the preceding illustration is made up in comparative form and beside each amount is shown the ratio to a selected base figure.

The preceding statement of profit and loss is also illustrative of a method that may be used to obtain results of operations by functional classifications as well as by account classifications for the organization as a whole.

Balance Sheet

The accounts shown on the balance sheet of a chain store company vary in accordance with the type of operation. The balance sheet generally will include the following:

Assets

Current Assets
- Cash on Hand and in Banks
- Marketable Securities
- Accounts and Notes Receivable
- (Usually divided to show separately Open Accounts, Installment Accounts, and Employees' Accounts)
  - Less: Reserves for Bad Debts
- Inventories

Fixed Assets
- Furniture, Fixtures and Equipment
  - Less: Reserve for Depreciation
- Improvement to Leased Premises less Amortization

Deferred Charges
- Prepaid Rent, Insurance, etc.
- Stationery and Supplies

Other Assets
Sundry, etc.

LIABILITIES

Current Liabilities
Accounts Payable
(Usually divided to show separately Trade and Other)
Notes Payable
Accrued Liabilities
(Usually divided to show separately; Payrolls, Taxes—other, Federal and State Income Taxes and Sundry)
Unearned Handling Charges
Long-Term Debt
Capital Stock
Surplus (divided to show Earned and Capital)

The assets and liabilities are valued in the normal manner. Some of the items, however, deserve additional comment.

Inventories

Inventories of chain stores of the type discussed in this chapter are usually large compared with the total assets of the company, representing at times as much as 60 per cent of total assets.

Generally, inventory values do not include any buying or warehousing costs, and are reduced by cash and trade discounts received. Companies following conservative methods of accounting also give proper treatment to items becoming obsolete or slow-moving and to items that are being removed from the lines of merchandise handled.

A major problem of chain stores is concerned with controlling the quantities of merchandise to be kept on hand. This problem arises because of the multiple number of units, their scattered locations, differences in buying habits of different communities, differences between cities resulting from different climatic and seasonal conditions, etc. Some companies permit managers of retail units to order all merchandise; others order all merchandise in the central office or in central distributing warehouses from records kept there, while others combine these plans.

Leasehold Improvements

Chain stores of the type discussed herein lease for relatively short periods all premises on which retail units are operated. This plan entails expenditures of varying amounts to place the premises

in proper condition for occupancy and the conduct of the particular type of business. The usual practice in accounting is to capitalize all such expenditures and charge them to Operating Expense over the life of the lease without regard to options for renewal unless such options are exercised considerably in advance of the expiration date.

Unearned Handling Charges

Handling charges added to installment contracts usually are taken into income at the time the sale is made if the terms of substantially all of the contracts are less than one year. However, if the terms of the contracts generally provide for payment over a longer period such income is deferred and the unearned portion is shown on the balance sheet as a deferred item of income, being taken into income as the amounts due under the contracts are reduced.

Bookkeeping Methods

The records maintained under the system of accounting for chain stores generally will include the following:

The general ledger contains major control accounts for assets, liabilities, funded debt, capital, surplus, income, and expense, without regard to the location of the assets or origin of the income and expense items.

Subsidiary asset ledgers contain information according to the location of the asset, and are usually posted from monthly summaries of daily reports of retail stores, central warehouses, and central office departments. Ledgers are usually maintained for cash, account and notes receivable, furniture and fixtures, and improvements to leased premises.

Subsidiary income and expense ledgers contain information by account classification for each unit of the organization and are usually posted from summaries of daily reports of retail stores, central warehouses, and central office departments.

A daily recapitulation record is maintained for each location. All entries appearing on daily sales and disbursement reports are posted to these records which are totaled monthly. The monthly totals are then posted to the subsidiary records mentioned above. Several different methods for accumulating this information are

used, such as hand posting to wide sheets with account numbers or names across the top; machine posting to similar sheets; peg-board strips prepared at the operating unit and summarized in the central office; transferring the information on the daily reports to punched cards used with tabulating equipment, with monthly summaries obtained by tabulating the cards.

Accounts payable records are generally not maintained separately for the various units or for individual creditors. Payments are usually made from invoices summarized on remittance advices on regular payment dates and open invoice files or open items on invoice registers form the only detailed information relative to accounts payable.

A payroll record is a combination history and earnings record required under various Federal and state laws. It is maintained for every employee and contains the usual data.

ACCOUNTING FOR THE CHEMICAL INDUSTRY

By

DANIEL M. SHEEHAN *

The activities of a chemical manufacturing company are generally divided into four major classifications: production, sales, finance, and research.

Greater stress is probably placed on research in the chemical industry than in most other industries. Although chemical manufacturing companies are constantly conducting research for *new* products, a more important phase of their research work is in the *improvement* of present products and of the processes for their manufacture. As a result of the constant changing of processes, there is a high degree of obsolescence in plant equipment. Research has been appropriately described as the life-blood of the chemical industry, and a chemical company which does not continue to engage actively in research will cease to progress.

A chemical manufacturing company usually is organized by divisions based on classes of products. These divisions may be corporate entities or merely sections of the same company, and are under the supervision of managers. In addition to the operating divisions, there is a financial division, the director of which is responsible for the financial activities of the entire company. The director of the financial division and the operating division managers report directly to an executive committee, which is subordinate to the board of directors. Large chemical companies maintain patent and legal departments which are independent of the operating divisions and function in the same manner as the financial division.

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Theory of Accounts

FINANCIAL DIVISION

The functions of the financial division of a chemical manufacturing company are similar to those of most other companies and include (1) accounting, (2) obtaining adequate funds for working capital and plant expansion, (3) safeguarding and investing company funds, (4) preparing tax returns, (5) arranging for appropriate and adequate insurance, and (6) contacting governmental bodies in connection with matters of a financial nature.

Accounting Department

The major function of the financial division is that of accounting for the operations of the company. The accounting department is organized somewhat as follows:

1. *General accounting* consists chiefly of keeping general ledgers and preparing financial reports for internal use and for publication.
2. *Cost accounting* consists of keeping production costs, including the determination of both standard and actual unit costs, and preparing reports relating to costs.
3. *Property accounting* consists of accounting for the asset values and related reserves for depreciation and obsolescence of the plant and other property of the company. It also includes the accounting for the maintenance of properties and the preparation of reports with respect to property.
4. *Accounts receivable* consists of keeping accounts with customers.
5. *Accounts payable* consists of preparing vouchers for payment and making distribution of the vouchered amounts to the various accounts.
6. *Treasury* is mainly concerned with accounting for the cash and securities of the company, and collecting customers' accounts.
7. *Budgetary control* consists of preparing all forecasts and budgets and related reports.
8. *Internal auditing* comprehends the audit of the records of the company, such as cash records, payrolls, and plant records. This section also devises new accounting methods and systems and supervises their installation.

Cost Accounting System

A most successful cost system for a chemical manufacturing company is the process standard cost system. Chemical products are manufactured by certain processes and under this cost accounting plan standard costs are developed and actual costs accumulated for each process and for the finished product.

Diversity of opinion and practice is found among the various chemical companies with regard to the elements entering into the cost of production. In general, chemical costs do not contain any

classes of expense other than those which originate in or relate to the plant. There are some exceptions to this general rule, such as salaries and office expenses of certain executive officers who are charged with the responsibility of supervising production, and expenses of the purchasing and traffic departments. Research expenses are not charged to costs on the theory that such expenses are not an element in the cost of manufacture, but are more of the nature of general expenses.

Under the process standard cost system a plant is divided into production centers or departments which manufacture either a single product or a group of closely related products. In addition to the production departments, there are the usual plant service departments. Actual costs are developed monthly covering each of the production and service departments, the latter costs being allocated to the production centers.

Raw materials are an important element of chemical costs, and standard costs are established for each. This task is not difficult since most of such materials are purchased on contract. Raw materials are recorded in the inventory accounts at actual costs, but are charged to Work in Process (or Cost of Production) at standard costs. The difference between actual and standard costs of raw materials is determined monthly and charged to a Raw Material Variance account. The standards are revised whenever there are changes in contract prices.

Labor, supplies, and all other direct and indirect factory expenses are charged to Work in Progress at actual cost.

Because the distribution of factory burden is such an extensive subject, a detailed description of the bases for allocating such expenses is not included in this chapter. Briefly, such costs are allocated either on the basis of actual usage (for example, power plant and water department expense), on the basis of direct labor, or on other equitable bases.

An expense ledger is maintained for each plant in which is recorded monthly, by elements, the actual costs for each production and service department.

As stated before, standard costs are developed for all regular products. These standards are based on labor-time studies, on studies by the research department, particularly with respect to

yields on materials, on various other studies and tests, and experience with actual costs.

It requires considerable time to develop accurate standard costs. All expenses entering into the cost of each product are included, and standards are developed for the various levels of production. Material costs in the manufacture of chemicals remain fairly constant, but certain of the direct and indirect conversion expenses vary with the volume of production. The purpose of establishing standards at the various levels of production is to obtain a comparison of the actual costs at the various production levels, with predetermined standard costs. One of these standards is designated "inventory standard," which is based upon the approximate normal capacity production of a department.

Standard costs are used in connection with inventory valuation and budgetary control. Under the process standard cost plan all work in process and finished goods inventories are valued at the inventory standard cost. The difference between actual and standard costs of production is computed monthly for each production department and such differences are called production cost variances. An example of such computation is as follows:

Work in process inventory at beginning of period (at standard cost)		$ ______
Add:		
Transfers of materials from other departments (at standard cost)	$ ______	
Cost of production, including both direct and indirect expenses (at actual cost, except major repairs at standard)	______	______
Total		$ ______
Deduct:		
Transfers to other departments (at standard cost)	______	
Transfers to finished goods inventory (at standard cost)	______	______
Remainder		$ ______
Work in process inventory at end of period (at standard cost)		______
Difference—production cost variance		$ ______

Debit production cost variances may result from decreased production or operating inefficiency, while credit variances may result from increased production or above-normal operating efficiency. Either debit or credit cost variances can also result from inaccurate standard costs. Many interesting facts can be brought to light

through an analysis of the monthly cost variances. The aggregate amount of the material and production cost variances is charged or credited monthly to net income.

One of the major problems in the cost accounting for a chemical manufacturing company is the evaluation of by-products, which are either sold or used in the manufacture of other products. In determining the cost of the main product, cognizance must be taken of and credit given for the valuation of the by-product.

A satisfactory method of accounting for those by-products which are sold consists of deducting a certain percentage from the established sales price of each by-product to cover selling, administrative and research expenses, and net profit. The remainder of the sales price after this deduction represents the cost value assigned to the by-product, which is credited to the cost of producing the main product. This method insures an equitable distribution of cost to the main products and by-products, and results in valuing the latter at an amount which will yield a profit when sold. The method is also recommended because of its simplicity and the fact that it facilitates the computation of costs. By-products used in further manufacture are transferred at established standard costs.

Cost sheets, covering each production department and certain of the service departments, are prepared each month for distribution to executive officers, plant managers, and others. The main section of the cost sheet is devoted to an exposition of the various cost elements, both actual and standard costs and the variances of actual from standard. It also shows the following pertinent data:

1. Percentage of yields on various materials, both standard and actual
2. Production, both actual and budgeted
3. Capacity production
4. The percentages of department and plant operations
5. Amount of investment in equipment of the department
6. Major repair charges, etc.

Research Accounting

In view of the importance of research and the large amounts expended for this purpose by chemical manufacturing companies, a brief description of the accounting for such expense is given. Research expense may be classified as follows:

1. Improvement of present processes
2. New processes for present products
3. Related new products

4. Unrelated new products
5. Application research
6. Pilot plant research
7. Purchased processes
8. Outside research

When a research project is undertaken, it is assigned a project number which is prefixed to indicate the classification of the project, and the direct expenses relative thereto are accumulated by such number. The monthly overhead expenses of the research department are allocated to each project on the basis of the direct charges. A report is prepared for each month setting forth the cost of each project for the month and year to date and the total cost to date, which includes the amount expended in previous years on each project. A summary is also included showing total cost for the month and year to date by research classes. If a budget system is used, a comparison is made of the actual and budgeted expense by project and class of research.

Accounts Required

The accounts necessary for a chemical company cover a wide range. An abbreviated list of such accounts is as follows:

Account Number	Account Name
Current Assets (Account Numbers 101.00 to 200.00)	
Cash	
101.00	Cash in Banks
102.00	Payroll Deposits
103.00	Working Funds
104.00	Petty Cash Funds
Marketable Securities	
105.00	Marketable Securities
Notes and Accounts Receivable	
106.01	Accounts Receivable—Customers
106.02	Reserve for Doubtful Receivables
107.00	Notes and Acceptances Receivable
108.00	Miscellaneous Accounts Receivable
Intercompany Accounts Receivable	
109.00	Intercompany Accounts Receivable
Interdivision Accounts Receivable	
110.00	Interdivision Accounts Receivable
Inventories	
151.00	Raw Materials
152.00	Goods in Process
153.00	Finished Goods
154.00	Stores and Supplies

155.00 Fuel
156.00 Vendors containers
157.00 Reserve for Inventory Adjustments
158.00 Reserve for Interdivision Profit in Inventories

Other Assets (Account Numbers 201.00 to 250.00)

Investments in Subsidiary Companies
201.00 Investments in Subsidiary Companies

Employees' Accounts Receivable
202.00 Employees' Accounts Receivable

Investments in Associated Companies
203.00 Investments in Associated Companies

Miscellaneous Investments, Deposits, etc.
204.00 Other Security Investments
205.00 Other Investments
206.00 Deposits with Mutual Insurance Companies
207.00 Investments in Operating Divisions

Property (Account Numbers 251.00 to 300.00)

Land
251.00 Land

Buildings
252.00 Buildings

Machinery and Equipment
253.00 Machinery and Equipment
254.00 Switch Tracks
255.00 Office Equipment
256.00 Automobiles and Trucks
257.00 Railroads
258.00 Roadways
259.00 Tank Cars and Shipping Containers
260.00 Machinery Stores
261.00 Construction in Progress
262.00 Research and Development Equipment
263.00 Salvage Equipment

Mineral Deposits
275.01 Mineral Deposits
275.10 Reserve for Depletion of Mineral Deposits

Intangible Assets (Account Numbers 301.00 to 350.00)
301.00 Patents and Processes
301.10 Reserve for Amortization of Patents and Processes

Deferred Charges (Account Numbers 351.00 to 400.00)
351.00 Prepaid Insurance
352.00 Prepaid Advertising
353.00 Prepaid Franchise Taxes
354.00 Prepaid Water Licenses
355.00 Deferred Capital Stock Tax
356.00 Other Deferred Charges

Current Liabilities (Account Numbers 401.00 to 500.00)

Accounts Payable
401.00 Vouchers Payable
402.00 Royalties Payable

403.00	Bonuses Payable
404.00	Capital Stock Tax Payable
405.00	Legal Expense Payable
406.00	Auditing Expense
407.00	Social Security Taxes Payable
408.00	Commissions Payable
409.00	Sales Taxes Payable
Accounts Payable- -Intercompany	
440.00	Accounts Payable Intercompany
Accrued Items	
450.00	Accrued Payroll
451.00	Accrued Vacation Wages
452.00	Accrued Property Taxes
453.00	Accrued Franchise Taxes
454.00	Accrued Water Licenses
Estimated Income Taxes	
470.00	Estimated Federal and State Income Taxes
Dividends Payable	
480.00	Dividends Payable
Deposits for Returnable Containers	
481.00	Deposits for Returnable Containers
Reserves (Account Numbers 501.00 to 550.00)	
Reserve for Depreciation and Obsolescence	
501.01	Reserve for Depreciation
501.02	Reserve for Obsolescence
Reserve for Pensions	
503.00	Reserve for Pensions
Capital Stock and Surplus (Account Numbers 551.00 to 600.00)	
Capital Stock	
551.01	Authorized Preferred Stock
551.02	Unissued Preferred Stock
551.03	Preferred Stock in Treasury
552.01	Authorized Common Stock
552.02	Unissued Common Stock
552.03	Common Stock in Treasury
Paid-in Surplus	
553.00	Paid-in Surplus
Earned Surplus	
554.00	Earned Surplus
555.00	Profit and Loss
556.00	Provision for Income Taxes
557.00	Dividends Received from Subsidiaries
558.00	Executive Office—Control Account
Profit and Loss Accounts (Account Numbers 701.00 to 800.00)	
Sales	
701.00	Sales
702.00	Returned Sales
703.00	Sales Allowances
704.00	Outward Freight
705.00	Cash Discounts Allowed

Cost of Goods Sold	
706.00	Cost of Goods Sold
707.01	Raw Material Variances
707.02	Production Cost Variances
708.00	Idle Plant Expense
709.00	Shipping Expense
710.00	Royalties Paid
711.00	Provision for Inventory Adjustments
712.00	Other Cost Adjustments
713.00	Discount on Purchases
714.00	Sales of Scrap, Obsolete Supplies, etc.
Interdivision and Intercompany Sales	
715.00	Interdivision Sales
716.00	Cost of Interdivision Sales
717.00	Intercompany Sales
718.00	Cost of Intercompany Sales
Unearned Profit in Interdivision Inventories	
719.00	Unearned Profit in Interdivision Inventories
Selling Expenses	
721.00	General Selling Expenses
722.00	Export Department Expenses
723.00	Branch Office Expenses
724.00	Technical Sales Service Expense
725.00	Sales Development Expense
726.00	Salesmen's Bonus
727.01	Commissions Paid to Outsiders
728.01	Commissions Earned
729.00	Advertising Expense
730.00	Order and Billing Expense
731.00	Sales Statistics Department Expense
732.00	Other Selling Expenses
Interdivision and Intercompany Commissions	
727.10	Commissions Paid—Interdivision
727.20	Commissions Paid—Intercompany
728.10	Commissions Earned—Interdivision
728.20	Commissions Earned—Intercompany
Administrative Expenses	
735.00	General Administrative Expenses
736.00	Executive Bonus
737.00	General Office Expenses
738.00	Financial Division Expenses
739.00	Legal Expense
740.00	Auditing Expense
741.00	Donations
742.00	Memberships and Subscriptions
743.00	Other Administrative Expenses
Patent Expense	
750.00	Patent Expense
Research Expense	
751.00	Chemical Research Expenses

403.00	Bonuses Payable
404.00	Capital Stock Tax Payable
405.00	Legal Expense Payable
406.00	Auditing Expense
407.00	Social Security Taxes Payable
408.00	Commissions Payable
409.00	Sales Taxes Payable
Accounts Payable—Intercompany	
440.00	Accounts Payable Intercompany
Accrued Items	
450.00	Accrued Payroll
451.00	Accrued Vacation Wages
452.00	Accrued Property Taxes
453.00	Accrued Franchise Taxes
454.00	Accrued Water Licenses
Estimated Income Taxes	
470.00	Estimated Federal and State Income Taxes
Dividends Payable	
480.00	Dividends Payable
Deposits for Returnable Containers	
481.00	Deposits for Returnable Containers
Reserves (Account Numbers 501.00 to 550.00)	
Reserve for Depreciation and Obsolescence	
501.01	Reserve for Depreciation
501.02	Reserve for Obsolescence
Reserve for Pensions	
503.00	Reserve for Pensions
Capital Stock and Surplus (Account Numbers 551.00 to 600.00)	
Capital Stock	
551.01	Authorized Preferred Stock
551.02	Unissued Preferred Stock
551.03	Preferred Stock in Treasury
552.01	Authorized Common Stock
552.02	Unissued Common Stock
552.03	Common Stock in Treasury
Paid-in Surplus	
553.00	Paid-in Surplus
Earned Surplus	
554.00	Earned Surplus
555.00	Profit and Loss
556.00	Provision for Income Taxes
557.00	Dividends Received from Subsidiaries
558.00	Executive Office—Control Account
Profit and Loss Accounts (Account Numbers 701.00 to 800.00)	
Sales	
701.00	Sales
702.00	Returned Sales
703.00	Sales Allowances
704.00	Outward Freight
705.00	Cash Discounts Allowed

Cost of Goods Sold	
706.00	Cost of Goods Sold
707.01	Raw Material Variances
707.02	Production Cost Variances
708.00	Idle Plant Expense
709.00	Shipping Expense
710.00	Royalties Paid
711.00	Provision for Inventory Adjustments
712.00	Other Cost Adjustments
713.00	Discount on Purchases
714.00	Sales of Scrap, Obsolete Supplies, etc.
Interdivision and Intercompany Sales	
715.00	Interdivision Sales
716.00	Cost of Interdivision Sales
717.00	Intercompany Sales
718.00	Cost of Intercompany Sales
Unearned Profit in Interdivision Inventories	
719.00	Unearned Profit in Interdivision Inventories
Selling Expenses	
721.00	General Selling Expenses
722.00	Export Department Expenses
723.00	Branch Office Expenses
724.00	Technical Sales Service Expense
725.00	Sales Development Expense
726.00	Salesmen's Bonus
727.01	Commissions Paid to Outsiders
728.01	Commissions Earned
729.00	Advertising Expense
730.00	Order and Billing Expense
731.00	Sales Statistics Department Expense
732.00	Other Selling Expenses
Interdivision and Intercompany Commissions	
727.10	Commissions Paid—Interdivision
727.20	Commissions Paid—Intercompany
728.10	Commissions Earned—Interdivision
728.20	Commissions Earned—Intercompany
Administrative Expenses	
735.00	General Administrative Expenses
736.00	Executive Bonus
737.00	General Office Expenses
738.00	Financial Division Expenses
739.00	Legal Expense
740.00	Auditing Expense
741.00	Donations
742.00	Memberships and Subscriptions
743.00	Other Administrative Expenses
Patent Expense	
750.00	Patent Expense
Research Expense	
751.00	Chemical Research Expenses

Income Credits	
771.00	Interest Income
772.00	Dividends Received
773.00	Royalty Income
774.00	Other Income Credits
Income Charges	
781.00	Financial Expense
782.00	Provision for Capital Stock Tax
783.00	Provision for Doubtful Accounts
784.00	Other Income Charges

Comments with respect to certain of the above accounts seem desirable. As previously stated, obsolescence of plant property is an important factor in the operations of a chemical manufacturing company. Obsolescence may be provided for in several ways, for example, (1) by establishing rates of obsolescence on the various items of plant property, and (2) by periodic lump-sum provisions based on past experience. The first method is more desirable since obsolescence can thereby be readily and properly allocated to the costs of production.

Where companies have a retirement pension plan which is not funded, it is recommended that the estimated pension payable to an employee upon retirement be provided for during the period of his employment. This plan is accomplished by charging the provision for pensions to cost of production and other expenses and crediting the reserve for pensions. The reserve at the end of any period should reflect the estimated liability for pensions for services rendered by employees to that date.

In addition to the accounts set forth in the above list, there are subsidiary accounts to record the details of cost of production, segregated between production and service departments. These accounts are maintained in a factory ledger which is controlled by the Work in Process account in the general ledger.

A further group of accounts is maintained to classify selling, administrative and general, and factory departmental expenses into such accounts as salaries, wages, depreciation, telephone and telegraph, and others.

Financial Statements

A balance sheet and a statement of income for a chemical manufacturing company are shown in Figures 1 and 2 respectively. The

Balance Sheet

REPORT No. 1

BALANCE SHEET ....19......

ASSETS	AT END OF MONTH	INCREASE OVER LAST MONTH	INCREASE OVER DEC. 31 LAST — AMOUNT	INCREASE OVER DEC. 31 LAST — PER CENT
CURRENT ASSETS				
CASH				
MARKETABLE SECURITIES				
CUSTOMERS NOTES AND ACCOUNTS RECEIVABLE				
MISCELLANEOUS ACCOUNTS RECEIVABLE				
ACCOUNTS RECEIVABLE—INTERCOMPANY				
INVENTORIES—REPORT NO 2A				
TOTAL CURRENT ASSETS				
OTHER ASSETS				
INVESTMENTS IN SUBSIDIARIES				
EMPLOYEES ACCOUNTS RECEIVABLE				
INVESTMENTS IN ASSOCIATED COMPANIES				
DEPOSITS WITH MUTUAL INSURANCE COMPANIES				
MISCELLANEOUS INVESTMENTS				
TOTAL OTHER ASSETS				
PROPERTY				
LAND				
BUILDINGS				
MACHINERY AND EQUIPMENT				
MINERAL DEPOSITS—LESS DEPLETION				
TOTAL PROPERTY—REPORT 2B				
PATENTS AND PROCESSES				
DEFERRED CHARGES				
TOTAL				
LIABILITIES				
CURRENT LIABILITIES				
ACCOUNTS PAYABLE				
ACCOUNTS PAYABLE—INTERCOMPANY				
ACCRUED ITEMS				
ESTIMATED INCOME TAXES				
DIVIDENDS PAYABLE				
DEPOSITS FOR RETURNABLE CONTAINERS				
TOTAL CURRENT LIABILITIES				
RESERVES				
DEPRECIATION & OBSOLESCENCE—REPORT NO 2C				
PENSIONS—REPORT NO 2D				
TOTAL RESERVES				
CAPITAL STOCK AND SURPLUS				
PREFERRED STOCK				
COMMON STOCK				
EXECUTIVE OFFICE CONTROL ACCOUNT				
PAID IN SURPLUS—REPORT NO 2E				
EARNED SURPLUS—REPORT NO 2E				
TOTAL CAPITAL STOCK AND SURPLUS				
TOTAL				

CAPITAL STOCK	AUTHORIZED SHARES	OUTSTANDING SHARES — AT END OF MONTH	OUTSTANDING SHARES — AT END OF PREVIOUS MONTH	OUTSTANDING SHARES — AT DEC 31 LAST
PREFERRED				
SERIES A				
SERIES B				
SERIES C				
COMMON				

Figure 1.

items included in the various captions on these statements are readily determinable from the chart of accounts which appears earlier in this chapter.

In addition to the balance sheet and statement of income, it is desirable to include the following statements in the monthly financial report.

1. Statement of inventories by classes and by locations, showing the same comparisons as called for by the balance sheet
2. Statement of changes in plant property accounts for the month and year to date
3. Statement of changes in reserves for depreciation and obsolescence for the month and year to date
4. Statement of changes in other reserves for the month and year to date
5. Statement of surplus accounts
6. Detailed statement of sales and gross profit by products for the month and year to date
7. Detail of selling and administrative expenses, income credits and charges showing the same comparisons as indicated on the Statement of Income
8. Statement of cost variances for the month and year to date

A periodic statement of cost of goods sold showing the prime elements of cost is also valuable. These statements should be accompanied by comments written by the chief accounting officer, setting forth all pertinent facts relative to the operations of the company as shown in the statements, and including matters which require the consideration of the other executive officers.

Bookkeeping Methods

The accounting records needed for a chemical manufacturing company are similar to those used by other manufacturing companies. Following is a condensed list of the records kept in a chemical company accounting department:

General Accounting
- General ledger
- Subsidiary expense ledgers of selling, administrative, and general expenses
- Salary payroll record
- Record of insurance in force

Cost Accounting
- Raw material inventory record
- Factory ledger, which is subsidiary to the Work in Process account in the general ledger
- Finished goods inventory record

Property Accounting
- Property asset and reserve for depreciation control ledger

Statement of Income

REPORT NO. 2

STATEMENT OF INCOME FOR MONTH OF .... 19 . . AND YEAR TO DATE

	THIS MONTH							YEAR TO DATE			
	ACTUAL		BUDGET		INCREASE OVER BUDGET	INCREASE OVER LAST MONTH	INCREASE OVER SAME MONTH LAST YEAR	ACTUAL	INCREASE OVER BUDGET	INCREASE OVER LAST YEAR	
	AMOUNT	% OF NET SALES	AMOUNT	% OF NET SALES						AMOUNT	PER CENT
NET SALES BEFORE CASH DISCOUNTS											
CASH DISCOUNTS ALLOWED											
NET SALES											
COST OF GOODS SOLD:											
AT STANDARD											
OTHER COST ADJUSTMENTS											
COST VARIANCES—REPORT NO 3D											
SHIPPING EXPENSE											
ROYALTIES											
INVENTORY ADJUSTMENTS											
OTHER											
TOTAL											
DEDUCT:											
DISCOUNT ON PURCHASES											
SALES OF SCRAP OBSOLETE SUPPLIES ETC.											
TOTAL											
NET COST OF GOODS SOLD											
GROSS PROFIT BEFORE INTERCOMPANY SALES											
PROFIT ON INTERCOMPANY SALES—REPORT NO. 3E											
GROSS PROFIT FROM OPERATIONS—REPORT NO. 3A											
DEDUCT:											
SELLING EXPENSE—REPORT NO 3B											
INTERCOMPANY COMMISSIONS—REPORT NO 3B											
ADMINISTRATIVE EXPENSE—REPORT NO. 3B											
PATENT EXPENSE											
RESEARCH EXPENSE											
TOTAL											
NET PROFIT FROM OPERATIONS											
INCOME CREDITS:											
INTEREST INCOME											
DIVIDENDS RECEIVED											
ROYALTY INCOME											
OTHER—REPORT NO 3B											
TOTAL INCOME CREDITS											
GROSS INCOME											
INCOME CHARGES:											
FINANCIAL EXPENSE											
FEDERAL CAPITAL STOCK TAX											
PROVISION FOR DOUBTFUL ACCOUNTS											
OTHER—REPORT NO 3B											
TOTAL INCOME CHARGES											
NET INCOME BEFORE PROVISION FOR INCOME TAXES											
PROVISION FOR INCOME TAXES—ESTIMATED:											
NORMAL											
EXCESS PROFITS											
TOTAL											
NET INCOME											

Figure 2.

Subsidiary record showing asset value and reserve for depreciation of individual units of property
Construction record which includes the detail of construction in progress
Repair and maintenance record which shows the cost of repairs by individual items of equipment

Accounts Receivable
Control accounts and detail records covering customers' accounts. Such records may be in the form of ledgers, invoice files, or tabulating cards

Accounts Payable
Voucher record which includes a list of vouchers prepared and a distribution of such vouchers to the various accounts

Treasury
Cash receipts record
Cash disbursements record
Record of marketable and other securities

Miscellaneous
Social security and related personnel records
Journal entries, which are prepared by various sections of the accounting department and cleared through the general accounting section for posting and filing
Work papers and other data in connection with the various records
Plant payroll records
Perpetual inventory record of supplies
Production statistical records

These records may be maintained in the general or plant office, depending upon conditions existing in a company.

Records of Plant Property—By reason of the large investment in plant property and also because of the high rate of obsolescence, many chemical companies maintain comprehensive records of their property.

Many forms are used in the accounting for plant property, the most important of which are:

1. Statement of the estimated cost of the project prepared by the engineering department, which is submitted for approval
2. A form for accumulation of the actual cost of each job. The aggregate of the cost of uncompleted jobs agrees with the construction in progress account in the general ledger and, therefore, these job sheets are as subsidiary record to the general ledger
3. A form for use by the plant in reporting retirements and transfers of property between departments and plants
4. A property ledger sheet for recording the value of the plant property by departments, buildings or other appropriate subdivisions, the totals of such subdivisions agreeing with control accounts in the general ledger. On this ledger sheet can also be recorded the related reserves for depreciation for the various divisions of property.
5. A form for showing asset value and depreciation provision for each unit of property. A tabulating card is well suited for this purpose because it lends itself to the speedy compilation of the information contained in the cards.

Periodic reports are prepared showing comparisons of actual and estimated costs, both for uncompleted and completed jobs. Such reports serve as the basis for investigation of large over-expenditures on construction jobs.

ACCOUNTING FOR CLOTHING MANUFACTURERS

By

HENRY SCHINDALL *

BRIEF DESCRIPTION OF BUSINESS

The clothing manufacturing industry is concerned with the production and sale of various articles of attire, each producer generally specializing in one item, or perhaps in two if the production procedures are similar. The many divisions of the industry frequently have common or similar business problems; in specific respects, naturally, these may vary considerably.

The industry as a whole is distinguished by several characteristics which determine the requirements of an adequate accounting system. Clothing manufacturing is primarily a comparatively unstable business, subject to the caprices of weather, the vagaries of style, and the hazards of season. In women's clothes especially, the factors style, trend, and fashion form a powerful trinity for both good and evil. If a ladies' hat manufacturer, for example, prepares for a felt season but straws become the vogue, he may suffer a severe loss; a trend towards sport styles in spring coats rather than "dressy" styles may force a manufacturer to revamp his entire sample line and take losses on purchase commitments.

The industry is furthermore a highly seasonal one. The year generally includes two or more periods of intense activity, separated by slack periods, during which machines lie idle, old merchandise is disposed of, and a new sample line is created. Seasons are short, sales are heavy, retailers demand service, competition is keen, and production is stepped up to maximum capacity. In the ladies' coat and the dress industry particularly quickly changing styles and the prevalence of design copying serve to increase the intensity of the peak of the season. The accounting system must, to be adequate, recognize these conditions and provide for them.

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The actual operations of the business begin with the creation of a sample line for the new season, which is displayed to buyers in showrooms and in stores throughout the country by salesmen. Because of style and weather changes, the danger of producing for stock purposes often makes it imperative that production begin after orders are received. Intensive production is then necessary, and frequently outside help is essential.

Principally for this reason, it is a common trade practice in many lines, to engage contractors to increase production capacity. The contractor generally maintains an independent factory of his own and contracts or agrees to convert raw materials supplied by the manufacturer into finished garments, charging a stipulated sum for the labor performed. By this means, the manufacturer insures elastic production facilities, reduces the amount of capital tied up in machinery, and secures standardized, predetermined labor costs. Title to merchandise at the contractors' premises remains at all times in the manufacturer. It may therefore properly be included in his inventory and must be adequately protected by insurance. The relationship is one of bailor and bailee.

A somewhat similar situation exists in the handkerchief industry, where linen goods are sent by manufacturers to Puerto Rico to be hand-rolled. Other divisions of the industry also frequently call upon outside labor at certain stages in the production of the article: materials may be sent outside of the manufacturers' premises for pleating, embroidering, monogramming, handdrawn work, and other specialized types of labor. This entrusting of materials to others, it will be seen, makes additional demands upon the accounting system.

Theory of Accounts

Since the clothing manufacturing industry comprises many divisions and each division varies from the others in several respects, the accounting systems required are varied in detail. Fundamentally, however, the basic objectives of an accounting system for the clothing manufacturer are:

1. To secure periodic statements of financial condition, usually at monthly intervals; the monthly balance sheet is of great importance to management and credit grantors, who keep watch over structural ratios and current position.
2. To secure a periodic statement of income, profit and loss, preferably at monthly intervals; to note the progress of the season

3. To secure detailed statistics concerning expenses for the season and for the month and note the trend and changes therein; in some cases also to measure the comparisons of actual expenses incurred with a budgetary forecast

4. To secure a running perpetual inventory record whereby accurate control may be maintained over the garment from the raw material stage through the factory processes, the outside labor operation, and the final disposition of the finished product.

The results of business activity as embodied in the statements and schedules above-mentioned depend in large measure upon the successful operation of the cost system. The procedure in general use in the industry may be designated by the term "estimated costs."

As has been said, at the beginning of a season, the manufacturer creates a sample line, consisting of a number of styles, in various fabrics and colors, to be offered to retail buyers at standardized prices. Trade practice is to sell garments only at set prices subject to a standard discount. For example, the manufacturer's selling price for a dress may be \$2.87½, \$3.75, \$4.75, \$6.75, \$8.75, \$10.75, and upwards, less a trade discount of 8 per cent. Each manufacturer generally specializes in one price bracket. The manufacturer therefore designs a dress to sell at his particular price, let us say, \$6.75 less 8 per cent. He then sets out to determine the kind of material, grade of labor, and quality of trimming he can use to keep his costs at a level that will provide a fair profit. In contradistinction to the usual method of ascertaining costs first and determining the selling price therefrom, this procedure is sometimes called "figuring back."

The manufacturer uses a calculation book which contains his estimates of costs of the various styles included in his sample line. The elements of cost computed in this record for a dress may be stated as follows:

1. Cloth or material cost
   a. Fabric (type, yardage, cost per yard)
   b. Linings (type, yardage, cost per yard)
   c. Trimmings:
      (1) Flower, belt, etc.
      (2) Buttons, zippers
      (3) Sewing thread and other trimmings
2. Direct Labor
   a. Cutting
   b. Operating

c. **Finishing**
d. **Examining**
e. **Pressing**

Although it is theoretically desirable to include estimated factory overhead and selling and administrative expenses on the cost calculation sheet, it may be reported that in practice many clothing manufacturers make their estimates as a rule only to the point reached above. Some, however, do include a rough estimate of factory overhead expense in their computation. They then allow a margin of gross profit considered sufficient to cover markdowns and selling and administrative expenses and to leave a fair profit. The reluctance of manufacturers to estimate selling and administrative expenses is due chiefly to the instability of the business, rendering the calculation of an accurate percentage allocable to each style difficult and unreliable. Some businessmen, however, do include selling commissions in their estimates.

The principal means of determining whether these estimated costs have been accurately determined, a question vital to the success of the business, is the perpetual inventory control system. Proper functioning of these records provides a check upon the actual materials consumed in cutting a lot of a particular style, and the actual labor used in completing the garment. The system must be designed to enable the manufacturer to determine, before it is too late and with a fair degree of exactness, whether he is succeeding in meeting his estimates, or whether he has, in any specific respect, miscalculated.

An example may clarify this significant point. Suppose that the cutting department of a coat factory is inefficient. The material costs of a popular style have been estimated on the basis of using two and one-half yards of material per garment at $2.00 per yard. The markers, who mark out the material for cutting, and the cutters themselves, use two and five-eights yards in the actual process of manufacture due to lack of care. If twenty thousand coats of this style are produced during the season in this fashion, a loss of 25 cents each in the cutting alone, if not discovered in time, would result in a loss of $5,000.00 through waste and inefficiency. A satisfactory inventory control system would immediately bring this situation to light by recording the number of garments cut at each cutting, the yardage consumed, and the average yardage per gar-

ment, which would then be compared with the standard recorded in the Calculation Book.

Some apparel industries lend themselves readily to precise and accurate accounting for units manufactured and sold. Manufacturers of men's clothing, for example, use a unique record tracing every piece of goods used from the time the original order is given to the mill to the ultimate disposition of the garments. Keyed by lot numbers, and employing loose-leaf forms, a manufacturing book gives in detail the minute history of the goods embodying every conceivable point of information through the several stages of order, receipt, cutting, manufacturing, and sale. A high degree of accuracy is frequently obtained by this system, which provides useful information to management and acts as a potent safeguard against pilfering.

Accounts Required

Since the industry is composed principally of small and medium-sized units, and since there are few elements requiring unusual treatment or presenting unique accounting problems, the chart of accounts need not be elaborate. Indeed, it can in the usual case be made quite simple without losing attainment of its purposes.

Besides the usual asset and liability accounts which develop in the regular manner, the general ledger is given over to a breakdown of sales, cost of sales, and expenses.

1. *Sales and Cost of Sales* include the following:

a. *Gross Sales* subdivided, as the case may be, into sales by item, style, range, or other group; Sales Returns and Allowances similarly subdivided; Sales Discounts and Sales Anticipation.

b. *Purchases and Purchase Returns and Allowances* is subdivided as the business requires, into accounts for woolens, cottons, silks, linings, trimmings, ribbons, threads, felts, straws, belts, and others. Another group added to the cost of material purchases consists of such items as: freight-in, sponging, dyeing, and shrinking; these are costs incidental to the purchase and necessary to render the material ready for conversion into finished garments.

c. *Direct Labor* may range from a simple split-up into two accounts, one for factory labor and the other for contractors' labor (or outside labor) to a detailed breakdown into cutting, trimming, operating, fitting, finishing, pressing, buttonholes, examining, etc. In some cases, labor may be apportioned to particular styles or in accordance with the sales breakdown; frequently, however, such analysis is impracticable.

d. *Indirect Labor* may consist of minor contractors' work, and other outside labor, such as embroidering, pleating, pointing, and monogramming.

e. *Manufacturing Overhead* which may include the following accounts: rent (apportioned to factory), light, heat, and power, salaries of foremen, superintendents, and designers, factory supplies, patterns and samples, labels, and depreciation of machinery and equipment.

2. *Selling and Shipping Expenses* have to do with costs incurred from the completion of the article to the point where it has been sold and is in the hands of the customer. The principal accounts are: freight and expressage, commissions to salesmen, commissions to sales agents, commissions to resident buyers, selling salaries, model and showroom salaries, shipping salaries, shipping supplies, traveling, entertainment of buyers, advertising, and depreciation of showroom fixtures.

3. *General and Administrative Expenses* include the usual costs of operating and managing an enterprise not directly allocable to production or selling. They include such accounts connected with administration as: office salaries, stationery, printing and postage, telephone and telegraph, legal and accounting, interest, dues, and subscriptions. Administrative salaries may be included in this group, or if the situation warrants, may be allocated between the manufacturing and selling groups above and this general group.

Concerning the representation of a chart of accounts through numbers or letters, a simple arithmetical code would adequately meet the need, in those cases where need exists. In many units of the industry, no code of any kind is used in practice.

Operating Statements

Most businessmen in the industry require the preparation of financial statements monthly, which vary in detail of presentation. Manufacturers who maintain perpetual inventory controls, and those who have physical inventories taken each month, are usually given statements of profit and loss showing operations for the period since the beginning of the fiscal year and for the current month; sometimes operations of previous periods are shown for comparative purposes. This group, however, which submits inventory figures monthly, is in the minority. The large majority receive a form of "break-even" statement, variously titled, which shows all the profit and loss factors with the exception of the inventory at the end of the period. To complete and balance the

statement, the merchandise inventory figure required to show neither profit nor loss since the beginning of the period is inserted.

The accompanying statement of income profit and loss is by no means standard in the industry, but it is frequently used. It will be noticed that manufacturing overhead is included among the expenses rather than in the cost of goods sold section. This somewhat unusual practice is maintained largely in order that the form of the statement may agree with the cost estimates of the manufacturer, who frequently includes therein only material and labor costs. Where the management's estimates include factory overhead, these items would be moved up and included in the cost of goods sold section.

In connection with the operating statements of a clothing manufacturer, it is pertinent to note that one of the distinguishing characteristics of the industry is the necessity for extended preseasonal preparation involving large working capital requirements and considerable short-term banking accommodations. During the preparatory period heavy strain is placed upon the working capital for a period of several months. Expenses, payrolls, and purchase bills must be met while income from sales and collections on accounts receivable are almost negligible. It is therefore highly advisable in most cases that the manufacturer construct a careful budget, together with a cash budget at the opening of his season. Experience indicates that the company with operations along planned lines will generally be more successful than otherwise.

Many of the large companies in the industry are now operating on this basis. Their operating statements show in addition to the regular figures, a column for budget figures and a column showing variations. These statements are obviously of considerably more value to management than a simple profit and loss statement.

STATEMENT OF INCOME PROFIT AND LOSS

	Period	Month
Sales—Gross		
Less: Sales Returns and Allowances		
Net Sales		
Less: Sales Discounts and Anticipation		
Net Income from Sales		
Cost of Goods Sold		
Merchandise Inventory—Beginning of Period		
Purchases—Net		
Less: Purchase Discounts		
Factory Labor		

Contractors Labor
Payroll Taxes on Factory and Contractors Labor
Total Material and Labor Cost
Less: Merchandise Inventory—End of Period
Cost of Goods Sold
Gross Profit on Sales

Manufacturing Overhead
Production Manager's Salary
Foremen
Rent (Apportioned)
Light, Heat and Power
Patterns and Samples
Designer's Salary
Factory Supplies
Depreciation of Machinery
Total Manufacturing Overhead

Selling and Shipping Expenses
Rent (Apportioned)
Salesmen's Salaries and Commissions
Commissions—Resident Buyers
Expressage and Parcel Post
Shipping Salaries
Shipping Supplies
Model's Salaries
Advertising
Traveling Expense
Entertainment of Buyers
Total Selling and Shipping Expenses

General and Administrative Expenses
Rent (Apportioned)
Office Salaries
Stationery, Printing, and Postage
Telephone and Telegraph
Legal and Auditing
Taxes
Insurance
Interest and Bank Charges
Credit and Collections
Dues and Subscriptions
Sundries
Total General and Administrative Expenses
Provision for Bad Debts
Total Expenses
Net Profit for the Period

Balance Sheet

Balance sheets are usually rendered monthly, together with the operating statements; when the latter presents break-even figures, the balance sheet will show Inventory Required to be Even and the

capital at the beginning of the fiscal year. Many firms issue certified balance sheets once or twice a year; and credit men of banks, mills, and factors keep careful and continuous check on their customers' financial condition, frequently requiring that pertinent data be submitted monthly.

The balance sheet form herewith submitted is typical of the industry. The bulk of assets lie in the current section; the balance is gathered together under Other Assets, since the total is usually small and insignificant as compard with the current assets. Indeed, credit men frequently ignore all assets except cash, accounts receivable, and inventory in considering credit granting.

Reserves for sales discounts and purchase discounts are set up as valuation reserves reducing the accounts receivable and accounts payable to the net amounts expected to be received and paid. Sales discounts may average 8 per cent, while purchase terms may be from 2 to 6 per cent; the net figures therefore more accurately reflect the value of the receivables and the obligation involved in the payables.

Generally, a large volume of business is done on a comparatively small capital requiring extensive credit. At the height of the season, a balance sheet may show liabilities far in excess of capital, perhaps three or four times as great. Position changes rapidly, receivables rise as sales grow heavy, inventory drops, liabilities are paid, and the current ratio rises until the end of the season. This rapid change in the balance sheet is carefully studied by management and credit grantors.

Of particular importance on the balance sheet is the inventory, consisting of finished garments, work in process, and piece goods. Certified balance sheets are usually issued to the trade at the end of a season, at which time old merchandise remaining from the previous season has become intermingled with new merchandise in preparation for the coming season. It is important, therefore, to segregate on the balance sheet both piece goods and finished garments of the two seasons. Furthermore, in order to present a balance sheet and operating statement which accurately reflect the results of the past season only, a common trade practice is to omit the new season piece goods from the inventory total, and exclude the purchase invoices covering this new merchandise from the accounts payable by a working paper entry reversing the original

recording of these invoices. A notation to this effect, together with the amount involved, must be made in the certification itself, or as a footnote to the balance sheet.

An additional accounting problem is involved in the valuation of the sample line already created and in existence at the balance sheet date. In the preparation of a sample line for the coming season, the manufacturer frequently makes a considerable investment in designing new styles. The market value of a sample may be, for purposes of illustration, only $10.00, although the cost of creating it may be as high as $50.00. If the sample line is valued at the lower of cost or market for inventory purposes, the manufacturer will show a loss of $40.00 per sample.

Such a loss on the new sample line would distort the past season's figures. If this procedure were followed, an operating loss might be shown in cases where past season operations were actually profitable. The expenditure for samples is rather in the nature of a deferred charge to operations, to be charged against income of the new season. For these reasons a frequent practice in the trade is to value sample lines at cost rather than at market value, at the same time indicating clearly on the balance sheet that this has been done. At the end of the new season, those samples which remain will be valued strictly at market prices so that their cost will be absorbed in the operations of the season to which they apply.

BALANCE SHEET

ASSETS

Current Assets
Cash in Banks
Cash on Hand
Accounts Receivable
Less: Reserve for Bad Debts
Reserve for Sales Discounts
Net Accounts Receivable
Merchandise Inventory:
Finished Garments
Goods in Process
Piece Goods and Linings
New Sample Line (at Cost)
Total Current Assets
Other Assets
Machinery and Equipment
Less: Reserve for Depreciation
Deposits Receivable

Deferred Charges
Total Other Assets
Total Assets

LIABILITIES AND CAPITAL

Current Liabilities
Accounts Payable
Less: Reserve for Purchase Discounts
Net Accounts Payable
Notes Payable—Trade
Notes Payable—Banks
Contractors Payable
Wages, Taxes and Expenses Accrued
Total Liabilities

Capital
Capital Stock
Surplus
Total Capital
Total Liabilities and Capital

BOOKKEEPING METHODS

The systems in use among clothing manufacturers generally include the following books of account in addition to the usual group of original entry records:

The General Ledger contains the usual asset, liability, capital, income, and expense accounts. Several major accounts, such as sales, purchases, and major expenses, are subdivided through columnar rulings to segregate subclassifications.

Accounts Receivable Ledgers contain a detailed record of transactions with customers, from which monthly schedules, customers' statements, and commission computations may be prepared and accounts may be aged.

The Accounts Payable Ledger contains a detail record of transactions with trade creditors, from which monthly schedules are prepared and with which creditors' statements are reconciled.

Payroll Records contain the usual information for periodic payrolls, complying with Federal and state statutes concerning social security taxes and with the wage and hour laws. Individual employee records are also maintained from which periodic statements of earnings are prepared for each employee.

In addition to the above records a perpetual inventory system is sometimes maintained which exists outside of the regular books of account. This system may consist of the use of a stock book showing the receipt and disposition of raw materials, a work in

process record indicating articles in process, and a finished garments record showing completed merchandise on hand, usually segregated into styles or price ranges. The Calculation Book, as mentioned previously, is a record of the various styles being produced, with sketches of design, and showing in detail the estimated costs of materials, trimmings, and labor.

Methods of handling transactions with contractors may be considered at this point since they are of considerable importance in several divisions of the industry. Two principal systems are in use. The first entails the maintenance of a Contractors' Charge Book, employed as a book of original entry, from which invoices are sent to the contractor with each shipment of materials; from duplicates remaining in the book, the contractor's account is duly charged. The price of materials charged to the contractor through this record may be the actual cost of the materials, but is more frequently a standard cost that is agreed upon beforehand. When conversion of the materials into finished garments is complete, the contractor sends an invoice back to the manufacturer together with the shipment, in which the manufacturer is charged for the material at the agreed price plus a stipulated sum for labor. When this invoice is recorded and posted as a credit to the contractor's account, the resultant balance represents the net amount due the contractor for labor. The principal advantage of this method is that a control is maintained over merchandise inventory at the contractor's premises since his account is charged with all shipments; and a continuous record of this merchandise at the contractor's premises is maintained in the general ledger itself.

The second principal method in use is considerably more simple, but in most cases not quite as satisfactory. This system entails no entry on the books of the manufacturer when merchandise is shipped to the contractor. Memorandum records of amount of materials shipped may or may not be kept. The contractor's invoice to the manufacturer in this case includes only the labor charge, and is entered simply as a charge to Contractors' Labor account and a credit to the Contractors' Payable account. It will be seen that, while necessitating fewer records, this method makes no provision for recording the value of the merchandise at the contractor's premises, nor does it hold the contractor to a strict accountability for material as indicated in the first method.

CLUBS AND FRATERNAL BODIES

By
G. L. Hull *

Brief Description of Business

The typical club or fraternal body is a nonprofit organization operated for the exclusive benefit of its members. The services performed depend upon the kind of club or fraternal body and may in the case of large organizations cover a wide variety of operations. The income derived from specific proprietary functions (namely, dining room, rooms, recreational facilities, etc.) and the expenses incident thereto are accounted for on a commercial basis.

The common sources of income of all clubs and fraternal bodies are membership or initiation fees, periodic dues, and special assessments. If the local body is an affiliate of a national group, a portion of these receipts is usually payable to the national organization.

Theory of Accounts

Clubs and fraternal bodies vary widely in kind and size, in financial policy, and in type of bookkeeping personnel. Naturally, therefore, considerable variations in accounting theory and practice are found among them. As a rule the system required is essentially simple in operation. There are many instances in which an elaborate system will defeat its own purpose, while a relatively simple system of accounts provides more efficiently the essential information required for the particular situation.

Generally a club or fraternal organization carries on several activities and the accounting system is built upon a functional framework. The income and expenses are therefore secured for each of the several functional departments or activities. Those costs incurred on behalf of more than one department are distributed on an equitable basis as is consistent with the particular circumstances.

All dues receivable at the close of the fiscal period may be re-

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flected in the statements on an accrual basis. Where dues are payable yearly in advance, and monthly income and expense statements are prepared, the proportionate amount of dues receivable for the month should be taken into income, and the unearned balance should be shown on the balance sheet as deferred income. Where the accrual basis is followed an allowance for doubtful accounts should be provided to cover the accounts that are questionable.

If it is the financial policy of the club or fraternity to recognize dues income only on a cash basis, a balance sheet account, Reserve for Unpaid Dues, may be established. This account is credited concurrently with the debits to Dues Receivable. When cash is collected on receivables and credited to Dues Receivable, the Reserve account is charged and dues income credited for the amount of the dues collected.

Membership or initiation fees may be accounted for either as income in the period received or as a direct credit to a permanent net worth account (initiation fees), distinct from the Earned Surplus account. The second method would be indicated in those cases in which initiation fees received are regarded, as a matter of financial expediency, as paid-in capital and not as income available for meeting current operating expenses.

While sound accounting theory and practice call for the establishment of asset value for prepayments, inventories of supplies, equipment, and furnishings, with a provision for depreciation on fixed assets, it is only in the large clubs that such procedure is common. By and large, the majority of clubs and fraternal bodies follows the practice of charging normal purchases of supplies, equipment, and furnishings to expense when procured; unusually large expenditures not contemplated in the regular income and expense budget are charged to surplus.

Accounts Required

Although the number and kind of accounts will vary to a considerable degree, depending upon the individual requirements of the club or fraternal body, the classification will take substantially the following generalized form: (1) the required income accounts, (2) expense accounts classified according to kind for each of the several income divisions, and (3) balance sheet accounts.

The ledger classification of accounts should in general follow the same sequence as the statement classifications.

Illustrative of a departmentalized income and expense classification for a fraternal body is that used by the Delta Tau Delta Fraternity for its local chapters.

Income
- House
- Table
- General
- Nonoperating

Expenses
- House
  - Rent (prorated)
  - Heat and Light (prorated)
  - Water
  - Telephone
  - Treasurer
  - Furnishings
  - House and Grounds
  - House Laundry
  - General Household
  - Summer
- Table
  - Rent (prorated)
  - Fuel
  - Heat and Light (prorated)
  - Service
  - Provisions
  - Equipment
  - Laundry
  - Sundry
- General
  - Rent (prorated)
  - Rushing
  - Chapter Paper
  - Dances
  - House Parties
  - Smokers
  - Conferences
  - College Annual
  - Pan-Hellenic Dues
  - Audit
  - Postage
  - Bank Charges
  - Sundry
- Nonoperating
  - Initiation Fees (to National)
  - Annual Dues (National)
  - Division Dues
  - Loyalty Fund
  - House Notes
  - Sundry

A typical large metropolitan club classifies its revenue in the following manner:

- Restaurant
- Cigar Stand
- Billiard Room
- Bowling Alleys
- Barber Shop
- Rooms
- Dues

The general ledger contains the following department expense control accounts:

- Restaurant
- Cigar Stand
- Billiard Room
- Bowling Alleys
- Barber Shop
- Rooms

Heat, Light, and Power Building Maintenance Management and Office	These items are prorated to the six departments
General	

A subsidiary expense ledger carries a detailed breakdown of each of the ten general ledger expense controls. Typical of this department breakdown is that for restaurant expense:

Food
Supplies
Wages
Employees' Board
Fuel and Ice
Laundry
Uniforms
Depreciation of Equipment
Depreciation and Fixtures
Repairs
Heat, Light, and Power—apportioned
Building Maintenance—apportioned
Management and Office—apportioned
Sundry

Operating Statement

A condensed form of statement of income and expense for a fraternal body, showing department balances follows:

STATEMENT OF INCOME AND EXPENSE

For the year ended ——

House Income			$xxx
House Expenses			
Wages	$xxx		
Utilities and Fuel	xxx		
Furnishings	xxx		
Rent	xxx		
Other	xxx	xxx	
Net Income—House Operations			$xxx
Board Income		xxx	
Board Expenses			
Food	xxx		
Wages	xxx		
Fuel	xxx		
Supplies	xxx		
Other	xxx	xxx	
Net Income—Board Operations			xxx

Chapter Income			
Initiations Fees	xxx		
Dues	xxx		
Assessments (Dances, etc.)	xxx		
Other	xxx	xxx	
Chapter Expenses			
Treasurer's Services	xxx		
National Dues, etc.*	xxx		
Social (Dances, etc.)	xxx		
Fraternal Equipment	xxx		
Other	xxx	xxx	
Net Income—Chapter Operations			xxx
Net Income from above sources			xxx
Surplus—beginning of period		xxx	
Add or Deduct: Unusual items not contemplated in budget		xxx	xxx
Surplus—end of period			$xxx

* May be shown as a contra to Initiation Fees and Dues Income.

Balance Sheet

A proforma balance sheet for a club or fraternal body follows:

Assets

Current Assets
- Cash in bank
- Petty cash and change funds
- Members' Accounts Receivable
  - Less: Allowance for Doubtful Accounts
- Inventories
- Prepayments

Fixed Assets (Detailed)
- Less: Allowances for Depreciation

Special Funds (e.g., Building Fund)

Equities

Current Liabilities
- Notes Payable
- Accounts Payable
- Members Advances (Prepaid Dues)

Reserve for Unpaid Dues

Long-term Liabilities

Initiation Fees

Surplus

Although the majority of clubs and fraternal bodies are legally incorporated, they do not issue capital stock since they come under the classification of nonstock corporations.

Bookkeeping Methods

The bookkeeping system of a club or fraternal body includes the following records:

The General Ledger contains asset and equity accounts, and in the larger clubs, detailed expense accounts or expense controls covering subsidiary expense ledgers. In smaller organizations, income and expense information for statements is taken directly from the columnar journal forms, and total expenses and income posted directly to surplus account.

The Membership Record is the detailed record of transactions with members. This record may be in ledger form or in the case of small organizations, a combination income journal and member account register may be employed.

The Creditors' Record is the detailed record of transactions with creditors. In most clubs the conventional voucher system is employed. For small clubs, a convenient record is the combination accounts payable register and expense journal. This journal form is readily adapted to the use of vouchers.

The Payroll Record is a statistical record for compiling the information required for social security and other government labor reports.

Books of Original Entry—As noted above many of the bookkeeping systems for small organizations are designed in a manner that makes it possible to prepare all statements directly from the books of original entry.

ACCOUNTING FOR COAL MINING COMPANIES

By
Mortimer A. Leister*

Brief Description of Business

Companies engaged in coal mining have different accounting problems according to the situation they find themselves in as regards either development or production stages of the operation. No part of the discussion herein will be concerned with the problems when proving or exploratory work is the main activity of the business.

A coal company in the development stage may be compared to a manufacturing business in the process of constructing its factories and equipping them. Practically everything that occurs at that time is by way of preparation for producing a marketable product at an economic cost.

The basic factor that will determine the ultimate success of the mining enterprise is the type of mine opening to be made. Generally, this decision is heavily weighted by economic considerations. The location of the opening also becomes a problem in engineering economics, so that not only the type of opening but its location has to be studied for a solution that will yield the greatest ultimate return on the capital invested. Commonly there are four types of openings available: drifts, slopes, shafts, and strippings.

After an opening has been made, tunnels are driven and the development proceeds until the main body of the coal is reached.

At that point the mine is considered to be in a production stage. Getting out the coal and marketing it then become the main activities of the coal company.

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Theory of Accounts

Accounting for the coal mining company is concerned with the basic problems of capital and income perhaps to a greater degree than any other kind of business. This is so because the business of the mining company is to deal in a property that is a waisting asset in the sense that each unit extracted reduces the value of the enterprise as a whole, so that there is a continuous process of liquidation of the business taking place.

The capital investment in the business in land for mining purposes, in development and construction, and in facilities for transportation and processing of the product, may be recovered if the enterprise is successful only from the sales realization of the coal extracted from the mine. No part of these costs or investment can outlive the economic value of the mining enterprise. It is, therefore, a problem of the greatest importance to determine the probability of future costs trends to be incurred for getting out the coal and marketing it for the purpose of fixing some reasonable limit in time when the returns will approach the minimum of break-even position. Needless to say, estimations of this character can be very faulty, so that, in the final analysis, the amortization of capital based thereon may become a very misleading factor when it appears on the income account as depletion or depreciation.

Another thing to notice as a peculiarity of mining accounting is the treatment accorded the purchases of equipment during the producing period of the operation. It is to be understood that the producing period is denoted by the fact that the daily output is at a level of volume that is being maintained as the normal output of the mine. The progress of the mining for this purpose is usually accompanied by requirements to haul the product at continued increased distances as the face of the coal recedes. With these increased costs often go increased needs for ventilation and drainage, and other incidental expenses. Additional track and haulage equipment, pumps, etc., must be purchased. Such additional equipment cost which is incurred only to maintain normal output, raises a question of treating the cost as capital or income.

This question has been resolved by different companies without reference apparently to any fixed principle of accounting. The

writer examined the reports of twenty-eight companies on this point and found that eighteen capitalized such equipment purchases against ten that expensed them. This was in the nature of a revelation, because it was expected that the influence of the federal tax allowance for expensing such equipment purchases would have prevailed more strongly than shown by the survey.

However, on another question involving the treatment of receipts from sales of coal during the development stage of the operation, the writer found almost an equal division between those that treated such receipts as credits to capital and those that treated such receipts as income from sales.

It is noted that the taxation of coal lands by state, county, and city taxing bodies is usually based on production, evaluation per ton being fixed by a state board of equalization. Surface of land under which coal is being mined is exempt from taxation, but equipment underground is included in assessment per ton on coal produced.

Because few coal companies stock coal, normally there is no problem of inventorying coal stocks. However, when such inventories are taken, they are usually valued at sales realization price less cost of marketing.

A question which the reader may be able to answer has arisen in the writer's mind about the viewpoint in the coal mining business that, insofar as accounting is concerned, a ton of slack coal costs the same as a ton of eight-inch or twelve-inch lump. The opinion has been offered to the writer in this connection that, regardless of the size or quality, all production is "just coal," the production cost per ton being the same on all sizes and grades, and that some smaller sizes, such as ¾ inch x 1¼ inch Stoker Coal will sell for more than the mine run, lump or egg prices. However, on any inventory left on hand at end of month, sizes are priced at selling price less average margin of profit and less any commission later to be incurred.

Accounts Required

The accounts of a coal company do not differ in their character from the kind of accounts carried by other kinds of business enterprise in respect to assets, liabilities, capital, and retained earnings. However, the size of the enterprise in all lines of business usually

determines the amount of analysis to be disclosed in the accounts which best suits the needs of management.

A small coal company with a single mine shows the smallest number of accounts, as one should expect. The large coal company owning a score of mines or more distributed among different states, and having interests in mining ventures from exploration projects in foreign nations to sales marketing agencies of every description, with complex financial setups among them, necessarily has an accounting system of correspondingly comprehensive scope to meet its requirements.

Generally, coal producers in different states are required to make reports on their production and shipments and sales realization, and very often also on costs to state bodies with regulatory powers. Coal producers' associations often discuss reporting requirements with these governmental offices for the purpose of lightening these burdens of the individual coal producer. This has led in turn to the establishment of practices for uniform reporting of information and has increased the value of the information submitted. One of the by-products of this relationship has frequently been the creation of uniform systems of accounts to assist the coal producer to meet his requirements. Application to the industry association for a uniform system of accounts for a coal producer will usually meet with a favorable response.

Operating Statements

The operating statements of a coal company uniformly display the following setup:

Name of Company ____________________ Mine ____________________
Mine Operating Costs for the months of ______ and ______ and for the months ended ______ and ______

	Months of			Months ended		
Sales by Grades		Per Ton	Per Ton		Per Ton	Per Ton
Mine run						
Crushed mine run						
Resultant						
Lump						
Egg						
Crushed egg						
Nut						

Pea
Nut slack
Pea slack
Slack

TOTAL TONS SOLD

Beginning inventory
Ending inventory

Tons produced

Sales realization

Operating Costs:
  Labor:
    Direct mine labor
    Main office salaries
    Vacation payments
    Welfare and Retirement fund
    All other

Total labor

Supplies requisitioned
Supplies
Power
Compensation insurance
General

Total (inc. labor)

General insurance
Taxes
Royalties
Depletion
Depreciation

Total operating costs

Gross operating profit

Operating income:
  Inventory val. adj.
  Discount earned
  Retail yard income
  Miscellaneous

Total operating income

Selling expense
General and Administrative expense

Total Selling, General, and Administrative expenses

Profit or loss
from operations

Other income and expenses:
Rented buildings
Store rents, concessions
Miscellaneous
Store income

Total income

Additions to
plant and equipment

Examination of the foregoing expense divisions will show that the information is set forth by natural categories, which in themselves furnish no information as to the functions served by the costs incurred. A functional type of daily operating statement follows.

DAILY OPERATING STATEMENT ....19....

Days Worked	Tons per Day	Mine		
		Today Tons		Month to Date Tons

WEATHER	Amount	Cost Per Ton	Amount	Cost Per Ton
Labor: MINING				
1 Pick Mining				
2 Top Coal				
3 Machine Mining-Room				
4 Machine Cutting				
5 Yardage—Loading				
6 Yardage—Cutting				
7 Maintenance Mining Machines				
8 Extra Compensation				
9 Mechanical Loading				
10 Mechanical Loading Machine Repairs				
Total Mining Cost				
HAULAGE				
11 Operating Gathering Locomotives				
12 Maintenance Gathering Locomotives				
13 Haulage—Mules				
14 Operating Main Line Locomotives				
15 Maintenance Main Line Locomotives				
16 Haulage—Mechanical Loading				
Total Haulage Costs				

MISCELLANEOUS

17 Mechanical Loading
18 Mine Tracks
19 Mine Wiring and Track Bonding
20 Slate and Timberman
21 Ventilation
22 Foremen and Inspectors
23 Repairs to Mine Cars
24 Tools and Supplies
25 Tipplemen
26 Repairs to Tipple
27 Weighing, Caging, and Hoisting
28 Repairs, Shafts, Slopes, Cages, and Hoisting Equipment
29 Maintenance Yard Tracks
30 Washery: Operation $______ Repairs $______ ____________________
Total Miscellaneous Cost ____________________
32 Power-Steam Plant $ ______ Sub-Stations $______
34 Superintendent and Mine Office
35 Miscellaneous
36 Surveying
37 Drainage
38 Vacation Pay ____________________
Total Labor ____________________
Operating Supplies
Welfare Fund
Power (Coal and Supplies)
Power (Purchased)
Fixed Charges
Compensation Insurance
Royalty
Depreciation
Washery Supplies
Unemployment Insurance
Old Age Benefits Tax ____________________
TOTAL ____________________

Many coal companies maintain systems of daily reporting which enables the managements to observe the flow of costs in informative manner. The chief costs in mining are labor and supplies. Much effort is expended to maintain detailed analysis of these costs. One coal company prints in its semimonthly time book code numbers for occupational and cost distribution as follows:

Section Mine

Ass't Foreman

SEMI-MONTHLY TIME BOOK

From To

Code Numbers for Occupational and Cost Distribution

"O" Represents Occupation
"D" Represents Cost Distribution

Mine Cost Distribution	Nos.
Joy Section	–2
Conveyor Section	–3
Parting to R R:–	
Haulage	–7
Maintenance	–8
Supply Delivery	–9
Tipple	–10
Shop	–11 to 55
General Supervision	–56
Other Mine Cost	–61

Overhead and Other Operating Cost Distribution Numbers	
All other accounts	
See Detail	–66 and Over

Joy Section	O D
Mine Foreman	215–2
Relief Mine Foreman	317–2
Greaser	7–2
Machine Man	13–2
Machine Helper	13H–2
Driller	14–2
Shooter	15–2
Joy Operator	19–2
Joy Helper	19H–2
Motorman	20–2
Brakeman	21–2
Trackman	32–2
Track Helper	32H–2
Slate Man	34–2
Scraper	35–2
Timber Man	36–2
Timber Helper	36H–2
Conveyor Section	
Mine Foreman	215–3
Relief Mine Foreman	317–3
Face Man	11–3
Boom Man	10–3
Supply Man	9–3
Mover	8–3
Greaser (Belt Man)	7–3
Tipple	
Tipple Foreman	301–10
Dumper	52–10
Tipple Operator	T53–10
Washer Operator	W53–10
Aerial Tram Operator	A53–10
Tipple Oiler and Greaser	54–10
Tipple Cleaner	56–10
Car Dropper	57–10
Slate Picker	59–10
Car Cleaner	60–10
Repair Man	79–10
Repair Helper	79H–10
Laborer	99–10

CODE NUMBERS FOR OCCUPATIONAL AND COST DISTRIBUTION

MAIN LINE AND GENERAL	O D
Superintendent	212–56
General Mine Foreman	213–56
Assistant General Mine Foreman	214–56
Supply Supervisor	255–56
Assistant Supply Supervisor	256–56
Maintenance Foreman, Inside,	307–8
Dispatcher	311–7
Timekeeper	312–8
Fire Boss	315–8
Timekeeper—Lamp House Man	316–8
Rock Drill Operator	12–8
Rock Drill Helper	12H–8
Motorman, Main Line	20–7
Brakeman, Main Line	21–7
Supply Motorman	20–9
Supply Brakeman	21–9
Booster Motorman	B20–7
Booster Brakeman	B21–7
Wire Man	27–8
Wire Helper	27H–8
Bonder	28–8
Bonder Helper	28H–8
Track Man	32–8
Track Helper	32H–8
Track Cleaner	33–8
Slate Man	34–8
Timber Man	36–8
Timber Helper	36H–8
Rock Loader-Mechanical	37–8
Trapper	40–8
Brattice Man	41–8
Brattice Helper	41H–8
Door Man	D41–8
Pumper	46–8
Ditcher and Pipe Layer	47–8
Rock Dust Motorman	R20–8
Rock Dust Brakeman	R21–8
Rock Dust Helper	48H–8
Unclassified Labor (Inside)	49–8*
Weighman	65–8
Sand Dryer	93–7
Oiler and Greaser	94–8
Lamp House Man	96–8

* If distribution is not Maintenance (8), use number indicating proper charge

SHOP	O D
Shop Foreman	302–
Head Joy Mechanic	71–
Joy Mechanic	72–
Joy Mechanic Helper	72H–
Head General Mechanic	73–
General Mechanic	74–
General Mechanic Helper	74H–
Machinist	75–
Machinist Helper	75H–
Blacksmith	76–
Blacksmith Helper	76H–
Bit Sharpener	77–
Car Repair Man	78–
Car Repair Helper	78H–
Tipple Repair Man	79–
Tipple Repair Helper	79H–
Armature Winder	80–
Armature Winder Helper	80H–

Show combination of two numbers to indicate occupation and distribution; for example, Machinist, working on Mining Machine is 75–16 etc., for any work done. Distribute cost of work performed by the above occupations as follows:

	O D
Rock Drill Repairs	–12
Coal Drill Repairs	–14
Powder Car Repairs	–15
Cutting Machine Repairs	–16
Bit Sharpening	–18
Joy Loader Repairs	–19
Conveyor Repairs	–23
Motor (Inspection) Car Repairs	–25
Mine Car Repairs	–26
Locomotive Repairs	–29
Trap Door Repairs	–40
Fan and Fan Motor Repairs	–42
Pump and Pump Motor Repairs	–46
Water Car Repairs	–49
Tipple Repairs	–55
Aerial Tram Repairs	–A55
Washer Repairs	–W55

Code Numbers for Occupational and Cost Distribution

Miscellaneous	O	D
Construction Superintendent	216–	
Power Maintenance Foreman	226–	
Construction Foreman	303–	
Carpenter Foreman	304–	
Boss (Pusher)	305–	
Maintenance Foreman (Outside)	308–	
Line Foreman	309–	
Core Drill Foreman	318–	
Bath House Man	95–	
Truck Driver	97–	
Laborer—Skilled	98–	
Laborer—Unskilled	99–	
Electrician	101–	
Electrician Helper	101H–	
Lineman	102–	
Groundman	103–	
Carpenter (Fitting and Finish)	111–	
Carpenter (Rough Saw and Hammer)	112–	
Carpenter Helper	112H–	
Painter	113–	
Painter Helper	113H–	
Mason	117–	
Plumber	118–	
Shovel Operator	121–	
Bulldozer Operator	122–	
Shot Firer and Driller (Outside)	123–	
Watchman	125–	

Show combination of any two numbers to indicate occupation and distribution; for example, truck driver hauling refuse from tipple is 97–10; electrician repairing telephone inside mine is 101–8; carpenter (F&F) repairing houses is 111–92; etc. for any work done. Distribute cost of work performed by above occupations as follows:

Miscellaneous, cont'd	O	D
Mine Maintenance		–8
Tipple Operation		–10
Other Mine Cost (not included in mine operating or repairs)		–61

* Designate by letter suffix, obtained from Cost Clerk and show what mine, as:

Material Recovery –61A (Wyo.)
Mine Building Repairs –61B (Jr.)
Haulway Repairs –61C (32)
etc. for any such item.

Power Maintenance		–66
Lighting (Outside System)		–70
Transportation (Truck and Auto Expense)—Show Vehicle No.		–79
Store Misc. Expense		–81
Store Supervisory		–82
Store Clerical		–83
Store Delivery		–84

(On all store items, show which store)

Mining Engineering		–85
Preparation Engineering		–86
Prospecting		–87
Safety and Training		–88
Supply Department Expense		–90
Painting**		–91
House Repairs**		–92
Out-Building Repairs**		–93
Garage Repairs**		–93G
Fencing**		–94
Water Supply Maintenance**		–95

**Designate Which Camp.

General Expense (Explain)		–96
Sanitation		–98
Roads		–99
Local Telephones (Outside System)		–101
Bath House		–102
Core Drilling		–105
Timber Treating Plant		–106
Club House		–115

On construction work, show occupation and designate charge by name—or use special construction code number where such is provided.

The same coal company uses a monthly supplies record of the following form:

Account ______ Mine Month Year 19

No.	Items	Page Date
1	Tape and Waste	
2	Oil and Grease	
3	Miscellaneous	
6	Telephone System (Inside)	
7	Lighting System (Inside)	
12	Rock Drill Repairs	
14	Coal Drill Repairs	
15	Shooting Supplies and Powder Car Repairs	
16	Cutting Machine Repairs	
17	Head Cables and Ropes for Cutting Machine	
18	Bits, Oil and Repairs for Bit Sharpener	
19	Joy Loader Repairs	
20	Haulage Locomotive, Misc. Supplies	
21	Sand for Haulage Locomotive	
22	Globes and Cables for Haulage Locomotives	
23	Conveyor Repairs	
25	Motor (Inspection) Car Repairs	
26	Mine Car Repairs	
27	Trolley Line Extension and Repairs	
27a	Copper Trolley Wire and Cable	
28	Bonding Supplies	
29	Haulage Locomotive Repairs	
32	Track—Spikes, Bolts, etc.	
33	Track—Steel Ties and Switches	
33A	Steel Rail under 40 lbs.	
36	Timbering, Misc. Supplies	
40	Trap Door Repairs	

Account Mine Month __ Year 19 __

No.	Items	Page Date
41	Brattice Material (Except Lumber)	
42	Fan and Fan Motor Repairs	
45	Water Car Repairs	
46	Pump and Pump Motor Repairs	
47	Pipe and Fittings for Drainage	
48	Rock Dust	
53	Coal Spray Oil	
55	Tipple Repairs	
55A	Aerial Tram Repairs	
55W	Washer Repairs	
60	Tools of All Kinds	
61	Shop Supplies (not classified above)	
62	Oxygen and Acetylene	
65	Lamp House	
	Total Credit to M. & S.	
	Warehouse Charge ______%	
	Total	
15A	Explosives	
33B	Sawed Mine Ties	
36A	Wood Mine Props	
36B	Wood Cap Wedges	
36C	Wood Headers & Mine Lumber	
	Total Charges	
	Total Supply Cost	

Another coal company uses the following form of cost of coal statement, which is reproduced only in part:

Total	Labor	Materials	Cost of Coal Statement
			A Management
			1 Superintendent
			2 Foreman
			3 Assistant Foreman
			5 Clerk
			6 Electrical Superintendent
			B Tipple Expense
			11 Weighman
			12 Dumpers
			14 Coal Inspector
			15 Shifters
			16 Rock Dumpers
			19 Cleaning Plant Crew
			21 Maint. Tipple and Tipple Equipment
			22 Maint. Cleaning Plant
			C Power Maintenance
			D Mine Transportation
			40 Motorman
			41 Brakemen
			42 Motor Boss
			45 Couplers
			48 Maint. Tracks
			49 Road Cleaners
			50 Wiring and Bonding
			51 Maint. Mine Cars
			52 Maint. Haulage Locomotives
			53 Maint. Hoists
			E Advance Work
			60 Yds H. Driven by yd. per yd. Yardage
			61 Yds.B.H. Driven by yd. per yd. Yardage
			62 Cross Cuts per yd. Yardage
			74 Misc. Ydge. (Extras not specified)

Sheet No. 1

Total	Labor	Materials	Cost of Coal Statement
			F Room Allowances
			91 Room Yardage per yd.
			91a Pillar Yardage
			94 Other Room Allowances
			95 Pillar Allowances

G Deadwork
107 All Other Deadwork

H Pumping
111 Pumpers

J Ventilation
121 Bratticing
126 Maint. Fans, Fan Motors, etc.

K Mine Safety
130 Fire Bosses
132 Maint. Safety Lamps
134 All Other Safety Measures

L Hand and Conveyor Loaded Coal
140 Hand Loading after Cutting Machines @—Net Tons
141 Chain Machine Cutting and Scraping @
142 Top Cutters Cutting and Scraping @ N.T.
147 Joint Cutting and Loading @ —Net Tons
148 Cutting Allowance
156 Maint. Bottom Cutters ( )
157 Maint. Top Cutters ( )
158 Occupational Supplies
159 Pick Mining @
Cost L N.T. Cost N.T.

Sheet No. 2

Total	Labor	Materials	Cost of Coal Statement

ML Mobile Loading

M 170 Total Smithing

N Gen. Hauling
180 Truck Driver
182 Truck Hire
183 Auto Expense

P General
191 Cleaning Snow Off Tracks, etc.
193 Other Outside Labor
195 General Monthly Men

O 200 Sundries Not Included Elsewhere

R Engineering Expense
SA Welfare and Retirement Fund
T Props, Crossbars, Caps, etc.
U Lubricants

S	Royalty
V	Compensation Insurance
W	Office
X	Insurance on Mine Property
Y	Purchased Power
	Less Credits
	Provision for Employers F.O.A.B
	Provision for Fed Un. Ins. Tax
	Vacations
	Total Mine Cost for Month
	Total Mine Cost to Date

Production for Month: ________

Production To-Date: ________

Sheet No. 3

Total	Labor	Materials		Cost of Coal Statement Recap Mine
			A	Management
			B	Tipple Expense
			SA	Welfare and Retirement Fund
			D	Mine Transportation
			E	Advance Work (Hand Loading)
			F	Room Allowances
			G	Deadwork
			H	Pumping
			J	Ventilation
			K	Mine Safety
			L	Hand and Conveyor Loaded Coal
			ML	Mobile Loading
			M	Smithing
			N	General Hauling
			P	General
			Q	Sundries
			R	Engineering Expense
			T	Props, Crossbars, Caps, etc.
			U	Lubricants
			S	Royalty
			V	Compensation Insurance
			W	Office
			X	Insurance on Mine Property
			Y	Purchased Power
				Prov. for Employers F.O.A.B. Tax
				Prov. for Fed. Un. Ins. Tax
				Vacations

TOTAL MINE COST TO DATE

Tonnage Produced this Month
Tonnage to Date
Increase over Last Month
Decrease over Last Month

ROYALTY MEMORANDUM

F.O.A.B. Tax	F.O.A.B. Tax to Date	Fed. Un. Ins. Tax	Fed. Un. Ins. Tax to Date	Total Taxes to Date	Average Cost to Date

Recap

BOOKKEEPING METHODS

The methods of account keeping in a coal company are substantially the same as those in other lines of business. However, it has been found convenient to maintain separate journals to record payroll and supplies distributions, shipments by rail and water, coal sales to employees and to local customers, and coal consumed in company operations. Sometimes separate journals are kept for recording depletion and depreciation and also royalty accruals. Very often the coal company is the community landowner and rents houses to employees, and a rent record of the type known as the "Boston Ledger" is convenient for this purpose. Where the coal company operates a store or commissary, it usually extends credit to its employees upon the understanding that the employee in each case will settle his account by a certain date, or, if he prefers, will authorize deductions from his wages. The store operations are the same as those for any similar store in the community and usually return a small profit to the coal company. Store transactions for a specified period are reported to the main office for journalizing.

The most important expenditures of the coal company—wages and supply bills—are paid by check on duly authorized vouchers, entry of which is made currently in a voucher register. The form of the voucher register usually is of a very simple type, limited mainly to show the settlement of the account with the creditor. Generally this reduces itself to three money columns, the net

amount of the check, a column for discount and other deductions, and a column for the amount of the bill accepted as a charge to the business. As noted previously, the analysis of these charges is applied in a bill distribution journal as an independent operation, offering thereby a check on the periodical total of the bills taken into account.

Collections from customers are mainly in the form of checks received in the mail, and bank deposits are made accordingly, so that simultaneous credits are applied to the customers' accounts by the device of using a bookkeeping machine. All cash collections in the form of currency are required to have cash receipts in numerical control sequence issued by the cashier, a copy of which is furnished to the customer's ledger accountant. Prompt credit to the customer's account is thereby insured upon the basis of the entry of the receipts, the total of which is charged to the cashier, pending his deposit of the collections.

Coal companies that operate their bookkeeping system entirely upon a machine basis have found it convenient to use a routine system of journal vouchers for monthly routine transactions. Each kind of routine transaction has its own identifying journal voucher number. Each of these vouchers is in a form specifying the account numbers and titles for debit and credit entries and contains an explanation which provides space for filling in figures of various kinds to be used in developing the journal entry. Sometimes a journal voucher is used in such systems to take account of cash transactions, but more often the postings to the control accounts in this respect are made directly by reference to the record of receipts or bank deposits and check disbursements.

ACCOUNTING FOR COLLECTION AGENCIES

By
CHARLES R. WARFEL *

BRIEF DESCRIPTION OF BUSINESS

A collection agency is a service organization engaged in the business of making adjustments and/or collecting money. Income is derived from commissions charged on collections made and from investigations, reports, and miscellaneous services performed for clients. In most states laws have been passed governing activities and insuring financial stability. Agencies may be classified as being local or national in character and sometimes specialize in handling particular types of accounts, such as wholesale, retail, professional, and car repossessions.

Accounts for collection are obtained in various ways, the most prevalent methods are direct advertising and personal solicitation by salesmen. Usually pamphlets, blotters, fee schedules, and other promotion material is distributed and is included in sales promotion cost.

Upon receipt of an account for collection it becomes known as a claim and is assigned a number. Many agencies use a cross-file system which consists of clients' cards, and debtors' cards, both alphabetically arranged, and the actual collection file arranged by number. This plan enables one locate the file quickly if full information is not given in communications received. Among national agencies, to facilitate handling the claim is referred to the adjustment office nearest the debtor, while among small agencies if the debtor does not respond to demands for payment it is necessary to forward the claim to local attorneys. The actual collection of the claim is an intricate subject; no two claims are handled in precisely the same manner.

When a claim is collected the money is remitted to the client and

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the file is stamped "paid." A disposition column on the client's card as well as the debtors' card is then stamped "paid." The client's card quickly shows the percentage of claims which have been collected or disposed of in some other manner if this system is used. The collection file, which contains a detailed record of activities as well as manner of payment, is usually stored for a period of years in order to provide reference in case other claims against the same debtor are received.

Theory of Accounts

Accounting practice for collection agencies differs considerably depending upon the type of agency, its size, the state laws under which it operates, and the number of adjustment offices concerned. The accounting setup may be very simple or fairly complex depending upon circumstance.

As a general rule the agency desires to determine from its accounting, first, income from collections and all expenses in relation to that income, and second, expenses. Accounting for expenses in relation to income is based on the belief that the following four definite expense groups are necessary: (1) attorney costs, (2) cost of soliciting new accounts, (3) cost of adjustment offices, and (4) general administration costs. Thus all expenses will fall into one of the above four classifications. The number of accounts under each group will vary as certain agencies need a more complete breakdown than others. This will depend largely upon individual experiences.

It should be pointed out that new accounts received for collections are neither assets nor liabilities so far as the agency is concerned, and therefore, will not be a part of the accounting plan. However, for comparative purposes most agencies keep a daily record of new business received. Each day's total of new accounts is added to the previous day's total and at the end of a given period or month, a grand total is taken, which may be compared with preceding or succeeding periods.

Accounts Required

Development of accounts for a collection agency should be based on what the agency seeks to know, namely, the amount of fees on collections made and the costs in relation thereto, and the amount

of expenses under the four expense classifications necessary, that is, attorney costs, soliciting costs, costs of branch or adjustment offices, and general overhead.

Attorney Costs—All cases referred to attorneys may involve payment of a commission and/or fee and agencies carefully compare this item in relation to total commissions earned. Many license fees are based on net commissions earned and for this reason most agencies charge attorney commissions and fees to commissions periodically, preferably yearly.

Soliciting Costs—Here as in other businesses we find expenses composed of salaries of the soliciting staff and its expenses, and of promotion expenses, such as advertising, blotters, folders, and fee schedules.

Branch or Adjustment Offices—An adjustment office is usually for the purpose of personally covering claims in its particular territory and secondly for soliciting new business. Usually all collections as well as new business are forwarded to the main office for handling. All salaries and expenses are also paid from the main office, thereby eliminating a great deal of unnecessary bookkeeping. Adjustment office expense will include rent, salaries, postage, supplies, and all items necessary to function.

Overhead—Overhead is, of course, composed of all expense necessary to do business but which does not readily lend itself to definite segregation. An agency will usually have the following five groups under this heading:

1. Administrative
   a. Salaries of those not included in the three previous divisions
2. Rent, light, depreciation, insurance, etc.
3. Travel expense
   a. Since adjusters personally cover claims agencies usually have a great deal of travel expense. If the agency owns cars, this heading would include maintenance as well as parking fees, traffic fines, and other incidentals. If the cars are owned by the adjusters, the practice may be to give a monthly allowance or to pay a certain sum per mile traveled.
4. General expense
   a. Stationery and supplies, telephone and telegraph, etc.
   b. Bad debts. A collection agency, naturally, should have few of these.
5. Taxes
   All taxes including social security and unemployment taxes but excluding taxes measured according to income.

In order to translate the accounts into definite groups with numerical symbols the following might be used:

Numbers	Will designate
101–199	All accounts involving income
201–299	Attorney costs
301–399	Soliciting costs
401–499	Branch or adjustment office costs
501–599	Overhead
601–699	Balance sheet accounts

The expense classification will naturally follow the agency's requirements, but the following grouping is representative.

EXPENSE CLASSIFICATION

	Attorney costs	Soliciting	Adjustment offices	Overhead
1. Advertising		301		
2. Attorney Deductions	202			
3. Attorney Commissions	203			
4. Bad debts				504
5. Catalogues, Folders, etc.		305		
6. Depreciation on Autos				506
7. Depreciation on Furniture and Fixtures				507
8. Donations, etc.				508
9. Ice, water, cups, towels				509
10. Insurance				510
11. License Fees				511
12. Light, Heat, etc.			412	512
13. Miscellaneous	213	313	413	513
14. Postage			414	514
15. Rent			415	515
16. Report Fees	216			
17. Sales Promotion		317		
18. Stationery and Supplies			418	518
19. Taxes—General				519
20. Taxes—Payroll				520
21. Telephone and Telegraph			421	521
22. Travel		322	422	522
23. Salaries	223	323	423	523

Operating Statement

PROFIT AND LOSS STATEMENT

The following operating statement is often used:

Commissions on Collections

Attorney Costs
Attorney Commissions and Fees
Other Attorney Expenses
Total Attorney Costs

NET COMMISSIONS

OPERATING EXPENSES

Soliciting
- Salaries
- Advertising
- Catalogues, Folders, etc.
- Miscellaneous
- Sales Promotion
- Travel
- Total

Branch or Adjustment Offices
- Salaries
- Postage
- Rent
- Supplies
- Telephone and Telegraph
- Travel
- Miscellaneous
- Total

Overhead
- Salaries
- Bad Debts
- Donations
- Insurance
- License Fees
- Light, Heat
- Miscellaneous
- Postage
- Rent
- Stationery and Supplies
- Telephone and Telegraph
- Travel
- Depreciation: Automobiles
- Depreciation: Furniture and Fixtures
- Taxes—General
- Taxes—Payroll
- Total
- Total Operating Expenses

NET PROFIT OR LOSS FROM COLLECTION

Miscellaneous and Other Income

TOTAL NET PROFIT OR LOSS (before Taxes)

BALANCE SHEET

ASSETS

CURRENT ASSETS

Cash in Banks
- Regular Account
- Clients' Account

Cash on Hand
Accounts Receivable

FIXED ASSETS

Furniture and Fixtures } Less Depreciation Reserves
Automobiles }

DEFERRED CHARGES

Prepaid Insurance
Prepaid Expenses

INTANGIBLE ASSETS

Good Will

LIABILITIES AND CAPITAL

CURRENT LIABILITIES

Accounts Payable—Clients
Accounts Payable—Regular
Advance Court Costs

ACCRUED LIABILITIES

Accrued Payroll Taxes
Accrued License Fees
Accrued Expenses

DEFERRED DEBT

CAPITAL

SURPLUS

The assets and liabilities of a collection agency do not differ a great deal from those of other businesses. However, sometimes an agency sells an intangible (service) and therefore has no merchandise inventory. Also, some of the accounts may be peculiar to the business.

Bank Account—Clients—Many state laws require money collected for clients to be held in a special account and not commingled with the agency's money. This law is designed to help prevent poorly capitalized agencies from using the money for personal reasons. It also discourages the practice of holding money collected for a longer period than is actually necessary.

Accounts Payable—Clients—This liability account offsets the bank account of clients.

Advance Court Cost—When it appears that a claim cannot be settled unless suit is instituted, it is customary for the agency to call upon the client for an advance to cover anticipated court costs. These costs vary depending upon the location of the court, amount to be sued upon, and several other factors. The costs expended are

added to the claim if judgment is secured and are refunded to the client when settlement of the judgment is made.

License Fees Reserve—This account reserves money monthly for the various city, state, and miscellaneous license fees that a collection agency may be called upon to pay. If the license fees are small the reserve system may be eliminated and the items charged directly to Expense.

Bookkeeping Methods

The bookkeeping system of a collection agency is composed of the following records to which are posted transactions from the books of original entry:

The General Ledger contains all controlling accounts as well as a record of all assets, capital, liabilities, income, and expense accounts. Balance sheet and Profit and Loss statements are prepared from this record.

The Accounts Receivable Ledger contains a detailed record of transactions involving commissions earned through accounts being paid direct to clients as well as all miscellaneous charges and credits. Statements are periodically prepared from this record.

The Fixed Assets Register records all fixed assets including furniture and fixtures and automobiles, together with the depreciation applicable to each item.

The Clients' Accounts Payable Ledger contains a detailed record of all transactions involving money collected and remitted to clients.

The Advance Court Cost Ledger records all money advanced for the purpose of filing legal actions.

Payroll Records contain the usual information necessary to comply with the various state and Federal laws regarding employees. Various social security reports are prepared from this record.

Entries to these records are made from the usual books of original entry in much the same manner as in other businesses. The books of original entry include a cash record, check record, payroll record, and general journal. In remitting money collected, many agencies use a triplicate check form which enables them to send the original to the client, and to keep one copy for the collection file and one copy for bookkeeping purposes. These check forms are usually provided with sufficient space to fully itemize the remittance thus eliminating possible misunderstanding as to exactly what the check covers.

ACCOUNTING FOR COMMODITY BROKERS

By

L. B. McLaughlin *

Brief Description of Business

Two kinds of business are handled by commodity brokers: (1) trading in commodity futures and (2) trading in commodities actually in existence, known as spot or cash commodities. The accounting methods and problems used in handling spot commodities are generally similar to those used in any merchandising concern and for that reason are not emphasized herein. Specialized accounting problems, however, arise from trading in commodity futures, which are contracts to receive or deliver specified quantities of a particular commodity at a certain price on a future date. At the time the original contract is made the commodity involved may not be in existence. The terms of the contract as to quantity of the commodity, quality, date, place, and manner of delivery are specified and governed by the rules of the various commodity exchanges. Although each contract contemplates the actual receipt or delivery of the commodity, in practice it appears that prior to the delivery date the quantity of commodities called for by outstanding future contracts exceeds the available supply. Therefore, as the delivery month approaches, those holders of contracts who do not wish to receive or deliver the actual commodity close their contracts by an offsetting purchase or sale so that when the delivery month arrives the remaining outstanding contracts are settled by actual deliveries and receipts.

Certain months during the year are designated as delivery months, which differ for the various commodities. On any day during the delivery month the seller may deliver to the buyer. The buyer therefore knows the month in which he may be called upon to take delivery, but does not know the exact day of the month

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until a notice is received from the seller. Deliveries are made by means of warehouse receipts which indicate, among other things, the exact weight, grade, and location of the commodity. Premiums or discounts are allowed in the final settlement, based upon standard quality specified by the terms of the original contract as compared with the quality actually delivered.

The term "commodity broker" as used by the financial community is all inclusive and is used to denote many different types of organizations, both from the standpoint of size and scope of operations. Certain commodity brokers are members of the clearing organizations of the various exchanges of which they are members, and as such settle their own contracts. Others are not members of these clearing organizations, therefore employ other brokers who are members to clear their business for them. The fundamentals of accounting procedure, however, are the same for all types and sizes of organizations.

The only source of income for brokers who deal exclusively in commodity futures for customers is represented by commissions. Those who deal in futures for the firm's own account have an additional source of income or loss, depending upon the results of their trading. For those brokers who deal in cash commodities foı the account of customers there are additional sources of income represented by charges to customers for handling such business, and interest on funds advanced to the customers to carry cash commodities. Expenses consist of clerks' salaries, telephone and telegraph charges, rent, exchange dues, clearing charges, etc.

In order not to generalize too extensively, this article is confined to the accounting problems and methods encountered in the office of a commodity broker who deals exclusively in a commodity futures business for the account of customers.

Theory of Accounts

The principal objectives of the accounting system for a broker handling a commodity futures business for customers are as follows: (1) the preparation of up-to-the-minute information concerning the status of customers' accounts, (2) the accumulation of information with which to effect daily settlement of transactions made for the account of customers, and (3) the accumulation of data with regard to income and expenses and assets and liabilities

for the preparation of periodic financial statements for supervisory bodies and for the proprietors of the business.

In a commodity broker's office the essence of the value of an accounting system depends upon the accumulation of current information so that the status of customers' accounts can be available from minute to minute throughout the day. For this reason the accounting system must be designed so that information concerning customers' transactions can be quickly distributed to the various departments involved. Furthermore, since all transactions are settled with the clearing house on the same day they are made, the accounting system must furnish information with which to make such settlement shortly after the close of the market.

Brokers dealing in commodity futures maintain two classes of accounting records. One records future contracts which their customers have bought or sold, and the other records the dollar amounts in connection with customers' accounts and with respect to the broker's general affairs. In certain parts of the accounting system both kinds of transactions are combined in one record and in other parts one record is used exclusively for one kind of transaction.

Two entirely separate accounts are kept for each customer. The first record is known as the money ledger and contains entries for receipts and disbursements of cash from and to the customer, and entries reflecting the profit or loss resulting from purchases and sales of futures. The second record is known as the contract ledger and contains entries showing the future contracts bought and sold by the customer. In order to determine the status of a customer's account at any particular time it is necessary to coordinate the information contained in these two sets of records. This is done through the maintenance of a third set of records called margin cards. On these the customer's open contracts are recorded and a calculation made as to the unrealized profit or loss based upon a comparison of the contract value with the market value. The customer's money balance is also shown on the margin card and by adjusting the money balance for the unrealized profit or loss, the customer's equity may be ascertained. These margin cards are memoranda records and are used solely for the purpose of determining customers' equities.

No entries are made in a customer's money ledger account for

profits or losses on trading in futures until a "round turn" is completed. This means that so long as the customer has an open contract, even though it may show an unrealized profit or loss, no entry is made in his money account until his open contract is offset by a corresponding purchase or sale at which time the profit or loss is realized. At the time the customer makes an original purchase or sale he is sent a notice, commonly called a confirmation. A record of this contract is made on the customer's contract ledger sheet and on his margin card, but no posting is made in his money account. When a subsequent offsetting purchase or sale is made the customer is sent a second confirmation which is entered in a similar manner on his contract ledger sheet and on his margin card. Subsequently he is sent a settlement notice (hereinafter referred to as a P & S or P & S memorandum) showing the results of the purchase and sale with the broker's commission included, and at that time is debited or credited in his money ledger with the net profit or loss.

Under the provisions of the Commodity Exchange Act certain kinds of commodities are specified as regulated commodities. The accounts of customers containing such commodities are known as regulated accounts, and require special treatment in the manner of handling funds deposited as margin by the customers. Reduced to simple terms this act requires the commodity broker to segregate and hold in a separate bank account, or otherwise account for separately as prescribed by the act, all funds held in customers' regulated accounts which are not required to margin their open future contracts in regulated commodities. As a result of this law most commodity brokers have divided their customers' accounts into two classifications, namely, regulated and unregulated; and have in effect set up two separate sets of accounts throughout the office. This technical procedure does not affect the fundamental theories of commodity brokerage accounting, and is therefore not covered herein in greater detail. Those who wish to obtain information on this particular phase of the subject may do so by communicating with the Commodity Exchange Administration, Washington, D.C., which has available complete details as to the requirements of the act and the methods of accounting involved.

A commodity broker's accounting system is generally divided into the following departments:

The Order Department receives the customers' orders to buy or sell, transmits them to the floor of the exchange, and after their execution, reports them to the confirmation department.

The Confirmation Department, upon receiving the executed order, prepares notices for customers, copies of which are passed to the other departments affected.

The Clearing House Department handles the "street" side of the customers' orders and accumulates information with which to clear the business at the close of the trading session. It also effects comparisons with other brokers and checks the accuracy of its work with information supplied by the representative on the floor of the exchange.

The Contract Ledger and Settlement (P & S) Department has two divisions; the first keeps the customers' contract ledger in which entries are made in terms of contracts, that is, futures bought and sold, and the second prepares P & S memoranda whenever a customer completes a round turn. These memoranda show the final profit or loss on the transaction, and are prepared in several copies for distribution to the other departments affected.

The Bookkeeping Department keeps customers' accounts with respect to their money balances.

The Margin Department maintains memorandum records showing customers' equities as compared with margin requirements.

The Cashiers Department receives, disburses, and accounts for all cash, both for the account of customers and for the house.

The General Ledger contains the usual accounts—asset, liability, income, expense, and capital.

Operations of the Clearing House

Before attempting to explain the detailed bookkeeping methods, an outline of the operations of a commodities clearing house is essential. Once a trade is cleared the brokers buying and selling no longer look to each other but from that time until the contract is closed, deal with the clearing house. If the clearing house did not exist the original contracting brokers would be constantly asking for and giving cash deposits to keep their contracts with other brokers properly protected. On account of the large volume of business, literally thousands of transactions would be handled each day, which would produce a chaotic condition. The substitution of

the clearing house concentrates all the open contracts of one broker, and permits him to mark (adjust) to market the net of his total open contracts by means of one deposit or one withdrawal.

The functions of a commodity clearing house, insofar as futures are concerned, are threefold. The first is the actual clearance of the trades between the brokers at the close of business each day. Such a clearance is concerned only with the transactions made on that day. Each broker who is a member of the clearing house prepares a clearing house sheet on which he records all of his purchases and sales for the day. Shortly after the close of the market he is furnished with the clearing house settlement price on each kind of future. The broker calculates the contract value of each one of the trades he has made and then recomputes these contracts at the settlement price. The difference between these two amounts he then pays to or collects from the clearing house. The amounts paid or collected are debited or credited, as the case may be, to the suspense account Commodity Futures Control.

The second function of the clearing house involves marking to market the open contracts that were carried forward from the previous day. To accomplish this, the broker calculates the difference between the settlement price the day before and the current price, applies it to his open contracts, and arrives at the total appreciation or depreciation for the day. In this case also the amounts paid or collected are debited or credited to the Commodity Futures Control account.

Although these two functions have been described separately, in practice they are combined into one, by first entering the contracts carried over from the previous day, and then adjusting for the new purchases and sales, producing the new open position at the close of business that day. The amount due to or from the clearing house on the new position is calculated by offsetting the contract prices on the trade of that day and the previous settlement price for contracts carried over against the new settlement price on the new net position.

To insure that brokers will at all times be able to meet their obligations, clearing houses require them to deposit margin on their open position. The amount of margin required per contract is set by the clearing house officials, and may fluctuate from time to time depending upon the condition of the market. It is generally

substantially less than the broker requires from his customers, and furthermore, it is calculated on the broker's net position with the clearing house.

The third function involved, therefore, is to calculate the net open position at the close of business that day and to add to or deduct from the margin already deposited, a sum sufficient to bring the deposit into agreement with clearing house requirements. The amounts paid or received for this purpose are known as original margins and have nothing to do with the Commodity Futures Control account mentioned before. This margin balance is set up in a general ledger account called Original Margins, and is increased or decreased from day to day as the broker's position with the clearing house changes or as the clearing house changes its requirements per unit of trading.

In certain instances these amounts are not actually deposited with the clearing house but are deposited by the broker directly in a bank for the credit of the clearing house. As evidence of deposit, the broker receives from the bank what is known as a margin certificate.

Accounts Required

The most important accounts required are as follows:

Balance sheet accounts:
- Cash in banks—free
- Cash in banks—segregated commodity margins
- Clearing Corporation stock
- Clearing Corporation contributions (cash deposit in lieu of stock)
- Clearing Corporation original margins—cash
- Clearing Corporation original margins—certificates
- Clearing broker's omnibus account—regulated (For brokers who do not clear their own trades.)
- Clearing broker's omnibus account—unregulated (For brokers who do not clear their own trades.)
- Commodity futures control account
- Customers' control—regulated
- Customers' control—unregulated
- Memberships
- Equipment—furniture and fixtures
- Capital
- Undivided profits

Income and expense accounts:
- Commissions earned
- Miscellaneous income
- Proprietor's drawings

Interest on capital
Employees' salaries
Rent and office maintenance
Telephone and telegraph
Insurance
Stationery and supplies
Exchange dues
Clearing charges
Brokerage paid
Taxes

The above list of accounts includes those required for both clearing and nonclearing members. For brokers who handle spot commodities, numerous additional accounts are required that are not included above. There are also the usual accounts for prepayments, accruals, etc., which are common to all businesses and therefore are not included in the foregoing list.

Balance Sheet

The following sample indicates the general principles inherent in the balance sheet of a commodity futures broker. The major point to be observed in this statement is that the unrealized profits or losses in open future contracts are an essential part of the statement. The ledger money balances taken by themselves are of little value in determining the broker's financial position. In analyzing the statement the profits and losses are applied against the ledger balances, and the liquidating values are thereby calculated.

COMMODITY FUTURES BROKER BALANCE SHEET

Assets	Ledger debit balances
Cash in bank and on hand..	
Clearing Corporation stock and contributions	
Margin deposited with clearing house	
Accounts with correspondent brokers *	
(Profit $_______ or loss $_______ in open contracts)........	
Commodity futures control account *.......................................	

* These items may appear either as assets or liabilities depending upon whether the money balance is a debit or a credit.

Customers' accounts:	
(A) Commodity futures accounts with open contracts:	
Fully margined:	
(Profits $_______ or losses $_______ in open contracts)	
Fully secured but undermargined:	
(Profits $_______ or losses $_______ in open contracts)	

Partly secured:
(Profits \$______ or losses \$______ in open contracts) ....
Ledger debits with losses:
(Losses \$______ in open contracts)..................
(B) Debit balances without open commitments..................
Memberships (present value \$______)................................
Equipment, furniture, and fixtures...

Liabilities and Capital
Accounts with correspondent brokers *
(Profits \$______ or losses \$______ in open contracts)....
Commodity futures control account *....................................

* These items may appear either as assets or liabilities depending upon whether the money balance is a debit or a credit.

Customers' accounts:
(A) Commodity futures accounts with open contracts:
(1) Fully margined:
(Profits \$______ or losses \$______ in open contracts).......................................
(2) Fully secured but undermargined:
(Profits \$______ or losses \$______ in open contracts).......................................
(3) Partly secured:
(Profits \$______ or losses \$______ in open contracts).......................................
(4) Losses with no ledger balance:
(Losses \$______ in open contracts)...........
(B) Free credit balances ....
Capital accounts:
(A) Capital ....
(B) Undivided profits ....

The profit and loss statement is not illustrated herein for the reason that the only unusual accounting point involved is to determine the period in which commissions are taken into income. In certain offices one half of the commission is accrued at the date the purchase or sale is made and the other half accrued at the date of the offsetting purchase or sale. In other offices no commissions are accrued, the entire amount being taken into income when the round turn is completed.

Bookkeeping Methods

In order to present clearly the detailed bookkeeping methods a typical transaction has been selected. It is one of the most common transactions wherein a futures contract is bought for a customer, held by him for a period of time, and subsequently closed by an offsetting sale. Recording the transaction has been divided into three steps: (1) entries made the day the contract is purchased, (2) entries required during the period the contract remains open, and (3) entries made the day the contract is sold and the round turn is completed.

ENTRIES MADE THE DAY THE CONTRACT IS PURCHASED

Customer's Cash Deposit

The customer enters an order to buy 5,000 bushels of Chicago May wheat. The broker informs the customer that he will require a margin of 7 cents per bushel, or a total of $350.00. The customer deposits $350.00 with the cashier. This receipt affects the following records: (1) cash receipts book, (2) general ledger, (3) customers' money ledger, and (4) margin card.

The Cash Receipts Book is used by the cashier to enter the amount received. The customer is given a receipt.

The General Ledger has posted to its control accounts at the close of the day the totals of the cash receipts book columns. In this instance, the bank account is debited with $350.00 and the customers' money ledger control account credited with $350.00.

The Customers' Money Ledger contains information prepared by the cashier, which is posted by the bookkeeper. In this ledger an account is opened and the deposit of $350.00 entered to the customer's credit.

A Margin Card is written up by the margin department and a credit of $350.00 entered thereon.

Customer's Order

During the time that the customer is making his cash deposit his order is transmitted to the floor of the Exchange where it is executed, let us assume, at a price of $1.10 per bushel. Confirmation of the order is then transmitted back to the order department, the execution price noted on the order, and the order handed to the confirmation department. In the latter department, a confirmation

of the trade is made, the entry of which affects the following records: (1) margin card, (2) contract ledger, and (3) clearing house department.

A Margin Card has entered on it the customer's confirmation, showing him long 5,000 Chicago May wheat at a contract price of $1.10 per bushel. As soon as this entry is made, the margin clerk figures the margin required and notes that it agrees with the cash deposited. The clerk will pay no further attention to the customer's account so long as the market on Chicago May wheat does not decline below $1.10 per bushel.

The Contract Ledger records purchases and sales. The contract ledger department receives a copy of the customer's confirmation and opens an account for him, posting the purchase of 5,000 Chicago May wheat at $1.10. This department is not concerned with price fluctuations and hence makes no entries except to record purchases and sales.

The Clearing House Department also received a copy of the confirmation and enters it on the appropriate sheet in the street book, which is somewhat like a purchase and sales journal in a stock broker's office. It shows in detail all trades made during the day and classifies them as to (1) kind of commodity (wheat, rye, etc.); (2) delivery month (May, September, etc.); (3) round lots or job lots; and (4) the market in which the trade took place (Chicago, Kansas City, etc.). A comparison slip is then prepared and sent to the clearing house.

At the close of business on this day the trade is cleared. Assuming no further transactions for the day and a clearing house settlement price of $1.08, the entries are as follows:

Dr. Commodity futures control	$100.00
Cr. Clearing house	$100.00

This amount represents the unrealized loss of 2 cents per bushel on 5,000 bushels.

Although in the above entry a credit is shown to clearing house, the actual credit when placed on the books is to the bank account, as when the clearing house sheet is turned in it is accompanied by a check for $100.00. The clearing house department inaugurates another entry to record the deposit of original margin with the clearing house. Assuming a clearing house requirement of 4

cents per bushel, the broker is now obliged to make an original margin deposit of $200.00, the entry for which is a debit to original margins and a credit to bank account.

The first phase of the transaction is now complete. The following theoretical trial balance of the general ledger summarizes the situation up to this point:

	Debit	Credit
Bank balance ($350.00 received from the customer, less $200.00 deposited as original margin and less $100.00 paid to the clearing house in marking the contract to the settlement price)	$ 50.00	
Original margins	200.00	
Commodity futures control	100.00	
Customers' ledger control		$350.00

It will be noted from the above that as yet no entries have been made to record the broker's commission.

ENTRIES REQUIRED DURING THE PERIOD THE CONTRACT REMAINS OPEN

No entries are now made until the clearing house settlement price changes. If it declines, the broker is obliged to make an additional deposit with the clearing house to mark the contract to market. At the same time the customer's equity is thereby reduced and the customer is called upon to furnish additional margin. If the clearing house price increases, the broker will receive funds from the clearing house and if he so desires, will permit his customer to draw out his unrealized profit so long as the customer keeps the original margin good. The foregoing, of course, is based on the assumption that the contract is long. If the contract is short, the above facts are reversed. In this case let us assume first that the customer was required to deposit an additional $100.00 margin, and second, that a few days later the market value increased to $1.50 per bushel. In the first instance the same entries would be made with the $100.00 additional margin as were made on the original deposit of $350.00. In the second case, when the market increased to $1.50 per bushel the broker would receive $2,100.00 from the clearing house which would be credited to the commodity futures control account and debited to the bank account. Assuming further that the customer was allowed to withdraw the $2,100.00

the entry would be a debit to the customer's account and a credit to the bank account. The situation may then be summarized by the following theoretical general ledger trial balance:

	Debit	Credit
Bank account (previous balance of $50.00, plus $100.00 additional deposited by the customer, plus $2,100.00 received from clearing house, less $2,100.00 paid to the customer)	$ 150.00	
Original margins	200.00	
Commodity futures control		$2,000.00
Customers' ledger control	1,650.00	

It is to be observed that although the customer's account now has a debit balance of $1,650.00, his equity remains at $350.00.

ENTRIES MADE THE DAY THE CONTRACT IS SOLD AND THE ROUND TURN COMPLETED

Assuming that when the market reached $1.50 per bushel the customer entered an order to sell, which was executed, a confirmation of the sale would be prepared by the confirmation department and would be transmitted to the following departments: (1) margin department, (2) contract ledger, and (3) clearing house department.

The Margin Department will enter the confirmation on the customer's margin card, but will not, however, cancel the purchase against the sale. This step will come in a later operation when the P & S memorandum is received.

The Contract Ledger department will post the confirmation on the sales side of the customer's ledger sheet. The ledger clerk when posting this item will note that the contract has been closed and that a P & S memorandum is required. He will therefore prepare a slip showing the customer's name, the details of the purchase, and the sale, and will hand it to the P & S clerk. The manner in which the P & S confirmation is entered will be found immediately after the next paragraph.

The Clearing House Department will enter the confirmation on the appropriate street book sheet. In making up the clearing house sheet for that night it will be observed that the position with the clearing house is now squared off and steps will be taken to withdraw any funds which are on deposit as original margin.

Entry of P & S Memorandum

The sales entries have now been made except that the purchase and sale memorandum, covering the profit and loss on the round turn, is yet to be entered. These memoranda are usually prepared in several copies and their entry will affect the following records: (1) margin card, (2) customers' money ledger, and (3) P & S journal and general ledger.

The Margin Card will be written up by the margin department. The department will receive a copy of the P & S memorandum and will post it to the records, the clerk erasing both open contracts and crediting the customer's money balance with the net amount shown on the P & S memorandum. The net credit to the customer in this transaction will be $1,987.50, calculated as follows:

Profit on round turn—credit	$2,000.00
Commission—debit	12.50
Net credit	$1,987.50

The Customers' Money Ledger clerk will receive a copy of the P & S memorandum and will post the net credit shown thereon in the customer's account.

The General Ledger will receive its posting from the P & S journal. After the above entries have been made, the theoretical general ledger trial balance would appear as follows:

	Debit	Credit
Bank account (previous balance of $150.00, plus $200.00 original margin returned from clearing house)	$350.00	
Customers' money ledger control		$337.50
Commissions earned		12.50

ACCOUNTING IN COOPERATIVE BUSINESS ENTERPRISE

By

W. L. BRADLEY*

DESCRIPTION OF COOPERATIVE BUSINESS ENTERPRISE

At the outset it is important to stress that the cooperative enterprise represents a "method of doing business" rather than a business enterprise engaged in any particular line of business. The cooperative method of conducting a business enterprise is adaptable to any type of business, and today its use may be found in almost every line of commercial or industrial activity. Therefore, in respect to accounting procedures, codes of accounts, and records to be maintained to reflect the financial position and operations of the cooperative enterprise, it may be summarily stated that, in general, the basic accounting records and procedures will not differ from those of any enterprise engaged in a similar type of business, to which must be added the supplemental records to be maintained and moderate changes in accounting theory, which will be hereinafter discussed.

In order to provide a better understanding of the recommendations which appear hereinafter, it is important that the reader understand what a "cooperative" is. A "cooperative" may be defined generally as an association or corporation organized and operated for the purpose of making a profit, not for itself as a business entity, but to enhance the economic status of its members or patrons. It is customary for the average businessman to limit his conception of cooperatives to those set up to serve agriculture either in the marketing of farm products or the purchasing of farm production supplies. However, the use of the cooperative form is much broader, and the average businessman might be startled to realize that he himself is a member of a true cooperative organiza-

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tion, through which he may be effecting some of his purchasing or accomplishing other phases of the activity of his own business. Most of the joint purchasing operations utilized by local merchants are true cooperatives in form, purpose, and operation. The Railway Express Company is a true cooperative, owned by, and operated for, the benefit of the railroads, which use it; and it distributes any net margin realized on the basis of relative use. The Associated Press is organized and operated on a cooperative basis. This will serve to demonstrate that here we are dealing, in fact, not with a particular type of business, but with a method of doing business.

Theory of Accounting and Accounting Procedures

It will be apparent from the nature of the cooperative form of organization that the applicable theories of accounts and required accounting procedures will closely follow generally those pertinent to the particular line of business in which the cooperative is engaged. The writer has always maintained that the Cooperative Association, whether it be an organization exempt from the payment of federal income taxes, as an agricultural cooperative under the provisions of Section 101–(12) of the Internal Revenue Code, or a taxpaying cooperative, should adhere to accepted principles of accounting as they apply to the particular industry in which it is engaged. In the past, some exempt organizations have departed from those accepted procedures, particularly in the matter of accelerative rates of accrual to depreciation and other valuation reserves. It has seemed to me that such variations from accepted practice violate the cooperative principle of doing business with patrons at cost, since such excessive allowances for depreciation, etc., overstate the expense of doing business during the specific fiscal period involved and, therefore, penalize the patron of that period. With the enactment of Section 314 of the Revenue Act of 1951, Section 101–(12) of the Internal Revenue Code was amended in such manner that it now becomes a matter of concern, even to the tax-exempt association, that it adhere faithfully to accepted accounting procedures, particularly to the extent that they involve what has come to be known as "Income Tax Accounting."

There is one notable exception to generally practiced accounting theories, with respect to inventory valuations. In a marketing co-

operative, for purposes of interim balance sheets within the fiscal year, or for purposes of closing out a pool at the end of the fiscal year, in order to complete the liquidation thereof, there are two alternative methods which may properly be followed in accounting for unsold inventories and advances to growers. They are discussed as follows:

First Method (Particularly applicable in instances where the inventory remaining in a specific pool may be relatively small, and it is desired to close out such pool by transfer of the inventory to a subsequent year's pool). Evaluate the unsold inventory in the pool at current sales prices, less adequate allowance for selling expenses, carrying charges, and handling costs incidental to final disposal. The contra credit would be added, along with proceeds from sales already made, to the net realization account for that pool, which would be credited to the patrons' (members or other growers) liability accounts. Any advances previously or subsequently made to growers on account of produce furnished would be charged against this liability account.

This method not only provides a basis for evaluation of the unsold inventory belonging to a pool in the balance sheet, but it automatically records the liability to growers as of the respective balance sheet date, based on the market value of the produce inventory at that time.

There have been arguments advanced against the use of this method by accountants who do not understand the operations of the cooperative. One is that, by pricing unsold inventory at the market value, it anticipates a realization of value or "profit" thereon which may fail of realization in the event of a market decline subsequent to the balance sheet date. That would be a valid criticism with respect to the realization of unrealized profit were it a commercial institution making a profit for itself, with the credit applied to the profit and loss account. However, in a cooperative, the values reflected in the inventory are set up not as profit or loss items to surplus but as a liability to the patrons. Therefore, any loss from liquidation in inventory, subsequent to the balance sheet, will be affected by a contra reduction in liability to growers, since, under most cooperative marketing agreements, the obligation to pay the grower cannot exceed the net proceeds realized.

In the event that the final liquidation value of the inventory is

such that it would realize less than the advances to growers, already made prior to the balance sheet date, the liability to growers set up in the balance sheet would be extinguished, and the cooperative would find itself in the same position as though it had never set up the inventory in the first place and had merely overadvanced to growers.

Second Method (Suitable only for interim statement purposes within the fiscal year, or for year-end statements in instances wherein pools are kept open until final liquidation, which may involve a period of time spanning more than one fiscal year). Carry as a single item in the balance sheet, as an asset or liability, however it falls, as an "Open Pool Operation, 195– Crop," a single item representing a net aggregate of the following:

Credits:
Proceeds from sales made to date.

Debits:
1—All operating expenses incurred to date coincident to the fiscal year pool, including labor, plant expenses, packaging materials used, etc.
2—All advances to growers on account of the respective crop year.

The net of the foregoing, if a debit would appear among the assets in the balance sheet, or if a credit, would appear among the liabilities (obligations to growers), in either instance under some such descriptive title as "Interim Status—Open Pool Operations, 195– Crop."

If this alternative method is used, the balance sheet should be supported by a schedule which will reflect the detail of the composition of the item.

However, this second method is properly applicable at the year's end only in instances where the pool is not to be closed out by transfers of unsold inventory into subsequent years' pool, but is to be maintained as an open pool in subsequent years until completely liquidated. The second method has the disadvantage of not reflecting on the records or financial statement any part of the unsold inventory by which either management or the grantors of credit could gauge the prospective amount to be recovered from the sales of inventory out of which to liquidate any advances to patrons as at a given date, or provide for expenses to be incurred in future liquidation.

Accounting Records

The accounting records to be maintained by a cooperative business enterprise are, like accounting theories, generally those required in the conduct of any similar type of business. These may go so far as to indicate adequate cost accounting systems as well as general accounting records. The need for an adequate cost accounting system may be indicated in certain instances where the computation of the patronage refund due each patron may be keyed to the net margin realized on each commodity or product, or respective groupings thereof.

The cooperative factor, however, does require the maintenance of an additional set of records, not usually found in the ordinary commercial enterprise. This reference is to the patronage records.

Certain types of agricultural cooperatives are entitled to exemption from Federal corporation income taxes, provided they meet certain conditions precedent to such exemption. Among other considerations, there involves the ratable treatment of all patrons in respect to distribution of patronage refunds, and the requirement that the association will not do more business with nonmembers than with members; and, as to purchasing cooperatives, that not more than 15% of the total volume of purchases made for patrons may be for those who are neither members nor producers. The importance of the patronage record under these circumstances is clear. It is also apparent that the patronage record should indicate the status of the patron as (a) an agricultural producer, (b) a member, as well as to reflect such patron's respective volume of business done with the association during any fiscal period.

As to those cooperative associations which have not qualified, or cannot qualify, for federal tax exemption (and these, in number, volume of business done, and types of business carried on, far outnumber the exempt organizations), the patronage record is of equal importance. The nonexempt cooperative is entitled to exclude patronage refunds paid to members or patrons in determining its taxable net income for federal income tax purposes, provided such payments were made pursuant to an obligation so to do which was in effect at the date of the transaction with the patron. Such an obligation is usually found in its by-laws. However, it may be in

the marketing agreement or in any other supplemental agreement. It is immaterial where the agreement may lie so long as it reflects a mandatory agreement to refund all, or a specific part, of the patrons' margins in effect at the date of the transactions. To the extent that such refunds represent the return to patrons of margins realized on the business which they have respectively done with the cooperative, the courts have repeatedly held that such distributions of patronage refunds are excludable from gross income of a purchasing cooperative, and deductible as an additional payment to patrons for product, in the instance of a marketing cooperative.

Cooperatives may be under an obligation to pay patronage refunds on business done with members only, in which event they would be required to pay income taxes on margins realized on business done with nonmember patrons. This feature sometimes simplifies the matter of keeping patronage records, in that it limits the need to records of business done only with members, or whatever class of patrons may be entitled to receive patronage refunds. The need for adequate patronage records, appropriate in the circumstances, is readily apparent, whether the cooperative be taxable or exempt.

In a taxpaying cooperative, greater refinement and detail in accounting for operations and margins may be more imperative. The exclusion of patronage refunds is limited to a return to each patron of the margins realized on his business. In some instances, where various rates of margins are realized on several commodities, an actual computation at realized rates applied to specific commodities may be required to support the exclusion, to establish that no part of the margins realized on business done with those not entitled to a refund has been included in the amount excluded from taxable income. In the absence of specific computations of the amount of refund properly excludable, a formula for determining that part of the margins which is refundable, and therefore excludable, and that part which may be taxable to the cooperative will be found in A.R.R. 6967–(C/B–III–1, P287).

It will be recalled that any net margins realized in the operation of a cooperative during any fiscal period are returnable to the members, or perhaps to all the patrons, as the case may be, on the basis of the relative value of business done by each patron with the cooperative, in relation to the total volume done by the coopera-

tive. Sometimes this ratio of the individual patron's share is based on dollar volume, and in others it may be on the basis of units of produce or merchandise involved. It is, therefore, necessary for the cooperative to maintain a running record of patronage with each patron entitled to a patronage refund. In the case of a purchasing cooperative, where all business may be done on a credit basis, the accounts receivable ledgers may serve adequately as patronage records, especially where the distribution is on the basis of the dollar volume. When the unit basis applies, supplemental patronage records are required, on which can be accumulated for each patron the units and dollar volume of patronage that he has put through the association. This latter situation particularly applies to marketing cooperatives.

In some cooperative organizations, the charter or by-laws provide a liability to payment of patronage refunds to members only; in others, patronage refunds are payable to all patrons ratably, irrespective of their status as members. The circumstances in each case will determine the extent to which patronage records must be maintained, in order that each patron entitled to a patronage refund may have his proportionate share of net margins determined.

Sometimes the patronage refunds are paid in evidences of equity, in some form or another, other than cash. When this is done, of course, adequate records that reflect the details of either equity credits or issued certificates must be maintained. These would correspond to the subordinate records maintained by many business organizations to record the holdings of its stockholders.

Terminology and Forms of Financial and Operating Statements

The fundamental difference between a cooperative organization and a commercial enterprise is that the cooperative is not an institution for profit. Accordingly, many of the commonly accepted accounting terms, if utilized to reflect the results of operations of the cooperative enterprise, are inappropriate and would be misleading. To reflect the true cooperative character of the enterprise in its accounting, and in its statements of operations therefor, requires the application of certain special terminology peculiarly suited to the needs of the cooperative type of organization, in place of terms commonly used in commercial parlance, and requires forms of

operating statements especially arranged and couched in appropriate terminology to illustrate graphically the nonprofit features of the operation.

SUGGESTED CHANGES IN TERMINOLOGY AS APPLIED TO THE BALANCE SHEET

The terminology in the balance sheet of a cooperative should generally conform to that for a commercial enterprise. The possible exceptions from this general rule would be limited to the "reserve section" and the "net-worth section" of the balance sheet. Now, with respect to reserves (and in this category, reference is to the reserves other than the valuation reserves, such as the reserve for depreciation and/or bad debts), it will be remembered that, in the instance of a tax-exempt cooperative, additions to the reserves are limited to those maintained for any necessary business purpose. These reserves are in two categories. The first, reserve for specific liabilities and contingencies which should be carried in a "reserve section" in the balance sheet; and the second, "reserve for general contingencies and for operating capital," which should appear in the net-worth section of the balance sheet.

In the net-worth section of the balance sheet, we would have certain categories, some of which conform to the practice in commercial enterprises and some of which might differ.

We have first the reference to capital stock in the instances of cooperatives which are organized with capital shares. The reflection of capital stock in the balance sheet should conform to the general practice, as in any business corporation. In certain cooperatives it has been the practice to pay patronage refunds in capital shares. When this practice is followed, in many instances the member or patron may have patronage-refund credits insufficient in amount for the issuance of a full share. Where the practice is to issue fractional shares, of course such fractional shares would be reflected in the appropriately "issued capital" section of the balance sheet. However, where stock has not actually been issued for such fractional credits, it would seem that the aggregate of such fractions might be put in the net-worth section of the balance sheet under the nomenclature of "share credits." This terminology is appropriate, however, only in instances where such credits are to be liquidated by the issuance of capital shares.

Member Capital

This term could be appropriately used to reflect the amounts paid in by members as initiation fees, or even as dues, in a nonstock cooperative association.

Certificates of Equity

Many cooperatives accumulate capital by distributing patronage refunds in forms of certificates of equity rather than cash or other form of security. These should be distinguished from certificates of indebtedness having a due date and bearing a fixed interest rate. These latter would appear in the balance sheet under the heading of "long-term debt" or "current debt" according to maturity, but where such certificates of equity have been issued, it is appropriate to refer to them as such and they should be shown in a separate category in the net-worth section of the balance sheet.

Appropriation Accounts

It is proper to reflect in the net-worth section of the balance sheet certain accounts that reflect appropriations of net margins. Among these accounts would be the following:

(a) Reserve for General Contingencies (sometimes called General Reserve).

(b) Reserve for Operating Capital (permanent capital accumulated by appropriations of net margins).

(c) Patrons' Equity Reserves (in which margins retained from patrons for capital purposes have been definitely earmarked which may, or may not be evidenced by certificates or other evidence of equity given patrons and which may or may not be subject to the revolving principal with respect to redemption).

(d) Reserve for Patronage Refunds Payable in Stock or Certificates.

These and many other similar appropriation accounts should appear in the net-worth section of the balance sheet.

Undistributed Margins (Undistributed Savings)

Retained Proceeds (Undistributed Proceeds)

The terms "undistributed margins" or "undistributed savings" would appear in the balance sheet of a purchasing cooperative, whereas the terms "retained proceeds" or "undistributed proceeds"

would be more appropriate in the balance sheet of a marketing cooperative. These terms apply to those annual additions to patrons' equities arising out of operations which have not been earmarked or otherwise distributed to the patron or appropriated for any specific purpose. In some cooperative balance sheets this category is referred to as "surplus." The writer very distinctly feels that the word "surplus" has no appropriate place in the balance sheet of a cooperative organization in respect to any item representing retained margins. Certainly any retained margins or retained proceeds should not be reflected as surplus, since the cooperative enterprise cannot have income of its own; accordingly it cannot accumulate surplus. Net margins undistributed, or net proceeds of a marketing cooperative undistributed, are the property of the patrons and do not constitute surplus belonging to the cooperative enterprise.

Member Equities

This term has sometimes been suggested as a substitute for "net worth." The writer cannot feel that this term appropriately applies in the place of net worth because it is not all-inclusive. The word does not embrace nonmember capital such as preferred stock or the equities of nonmember patrons in revolving fund and other reserves. Even the term "patrons' equities" is not entirely suitable, since it does not appropriately embrace such elements of net worth as may have been contributed by investors who are not patrons.

Capital Stock—Patrons' Equities

This term has been appropriately used in cooperative balance sheets as a caption to embrace the entire capital employed in all categories. It embraces capital-stock liability, as well as all capital reserves of every description. These classified items should be listed separately under the general balance-sheet caption as indicated.

Terminology Applicable to Operating Accounts

The appropriate title for an operating statement is "Statement of Operations and Margins" as distinguished from "Statement of Profit and Loss," or "Statement of Income," which might ordi-

narily apply to that of a proprietory enterprise. This title is more indicative of the cooperative nature of the enterprise. It covers the operations, which embrace revenues and expenses, and reflects the net margins realized from such operations.

Operations Clearance Account

It is customary accounting procedure to close all operating accounts into a "clearance" account at the close of each fiscal period, in order to cast up the net results of the operations for the period. In commercial accounting parlance, this "clearance" account is usually known as the "profit and loss" account. As a matter of general practice, most cooperatives use the same term, although it is evident that it is not appropriately applied to a "nonprofit" institution. It is suggested that a proper name for such an account would be "operations clearance" account, rather than "profit and loss" account.

Purchasing Cooperatives

Let us first consider those terms which are particularly appropriate to the requirements of a purchasing cooperative. Certain of these terms would appear as the name of a ledger account, whereas others are for purposes of statements only.

Purchases by Patrons (or Patrons' Purchases)

This term is recommended to supplant the word "sales." All too frequently the operating statement of a purchasing cooperative reflects sales, when actually the cooperative does not sell to its patrons but makes purchases for its patrons. If this distinction is not made, we cannot avoid the implication that, when a cooperative sells to its patrons, it realizes a profit or loss on a sales transaction. The true function of a cooperative should be clearly indicated in this use of appropriate terminology, both in its ledgers and statements.

Cost of Patrons' Purchases

This term should be used in place of "cost of sales."

Gross Margins

This term should apply instead of "gross profit" or "gross income."

Conversion and Handling Expenses

No special terminology is required for this group of operating expenses in either the ledgers or statements except as the particular type of business engaged in by the cooperative may dictate the use of special terms. The classification of operating accounts will vary according to the line of business and the particular requirements of management, but they should generally conform to similar accounts utilized by proprietory enterprise to reflect the details of operating expenses.

Distribution Expenses

In this category of the operating statement should fall the expenses that, in a proprietory enterprise, would be classed as selling expense. The actual accounts in this category will be determined according to the line of business and the amount of detailed information desired by management; but, again, they may not vary greatly in classification from those maintained by a commercial enterprise engaged in a similar line of business. Salaries and expenses of field representatives would ordinarily come within this grouping.

Administrative Expense

In this category of expenses there will be a classification which will vary according to the line of business and the particular requirements of management, which again will not vary greatly from those commonly used by commercial enterprises in the same field of endeavor.

Net Operating Margins

This term is applicable in the operating statement in place of "net operating profit."

Other Revenues (or Other Receipts)

This term should be used in the operating statement rather than the term "other income," because the cooperative has no income of its own account. It has revenues and expenses but no income, as such.

Other Deductions

This caption should be used rather than "deductions from income."

Net Margins (an Alternative—"Net Savings")

The term "net margins" or "net savings" should be used rather than "net income," "net earnings," or "net profit," because the cooperative has no income, earnings, or profit of its own account.

Marketing Cooperatives

Sales

Produce Marketed

Proceeds Realized from Patrons' Produce

Any one of the three foregoing terms is appropriate to record the amount realized from the disposition of produce for patrons by a marketing cooperative. The use of the word "sales" is appropriate for a marketing cooperative, inasmuch as the cooperative actually does sell the produce for the account of patrons.

Gross Realization

This term should be appropriately applied to reflect the proceeds realized from sales, plus or minus inventory changes. This term will apply principally in instances where the marketing cooperative has taken title to produce, at least for year-end inventory and pool-closing purposes. Therefore, in order to credit the patrons with the total value realized for the crop, the amount realized from sale, which may include proceeds from the opening inventory, must be adjusted to reflect the net change in inventory value as of the beginning and the close of the year.

Conversion and Handling Expenses (an Alternative—"Operating Expenses")

Sales Expense

Administrative Expense

The comment made previously with respect to these three categories of expense, in the discussion of purchasing cooperatives, applies appropriately to those of the marketing cooperative.

Net Realization

This amount represents the gross realization from marketing patrons' produce, less expenses of operations. It indicates the net amount realized on the disposition of the crop before any distribution shall have been made to producers.

Advances to Producers

This item represents the preliminary advances made to producers prior to the close of the crop or pool. In many forms of cooperative operating statements, this is erroneously stated as "cost of sales." It is not truly a cost of sales, because it represents merely what has been advanced to the producer and may, or may not, conform to the comparative market value of the produce marketed for the producer. It could appropriately appear as "cost of sales" only in those instances where the cooperative makes the practice of making advances to patrons on the basis of a comparative current market, but, even in that instance, it would be inappropriate to classify the item as cost of sales, for the implication of the term is that the cooperative has actually incurred a cost or made a purchase —with resulting gain or loss. It might better stand under the nomenclature "advances to producers."

Undistributed Proceeds—Retained Proceeds

These terms apply more appropriately to a marketing cooperative than the term "net margin," although net margins can be used as an acceptable alternative; but, if the term "undistributed proceeds" or "retained proceeds" appears in the operating statement of a marketing cooperative, it is self-explanatory and self-descriptive.

Patronage Refunds (Patronage Dividend) (Patronage Rebates) (Patronage Returns) (Savings Returns)

In cooperative practice, purchasing net margins and marketing net proceeds realized are returned to patrons in a ratable distribution. This distribution has been variously referred to as indicated in the caption.

The writer prefers the term "patronage refund," as indicating

a refund to the patron of that which came from him and remained his property.

Certain cooperative marketing associations do not take title to the produce of the patrons and do not bill it to customers in their own name; rather, they operate on a commission basis. This is particularly true in the case of livestock-marketing cooperatives. The revenues accruing to such a cooperative, as distinguished from the total receipts, are therefore limited to "commissions" or "fees." In such instances, we believe that the term "commission revenues," rather than "commissions earned," or "fee revenues," rather than "fees earned," most appropriately reflects the known income status of cooperative organization, since it usually is deducted to pay expenses, and any unused portion is subject to refund to the patron.

Specimen forms of operating statements—Exhibit A to D, inclusive—follow. These will serve to demonstrate the application of the terminology which has been discussed herein.

Exhibit A

STATEMENT OF OPERATIONS AND MARGINS OF AN AGRICULTURAL PURCHASING COOPERATIVE

Purchases by patrons		
Plant and direct		$5,000,000
Less: Returns and allowances	$ 100,000	
Outbound freight	200,000	
		300,000
Net		$4,700,000
Detailed as follows:		
Purchases by patrons—direct—net	$ 500,000	
Less: Cost of Purchases by patrons—direct—net	450,000	
Gross margin—direct shipments		$ 50,000
Purchases by patrons—plant—net	$4,500,000	
Less: Cost of purchases by patrons—plant		
Ingredients—net	$3,600,000	
Outside storage and handling	10,000	
Demurrage	1,000	
Inventory adjustment—physical	10,000	
—market	15,000	
Hedging operations—ingredients	5,000	
Bags, tags, and twine-packaging costs	250,000	
Conversion and handling expenses—net (per schedule)	350,000	
Total cost of plant output	$4,241,000	

Gross margin—plant shipments		249,000
Gross margin—all shipments		$ 299,000
Less: Distribution expense (per schedule)	$ 65,000	
Administrative expense (per schedule)	90,000	
Financial expense (per schedule)	15,000	
Total expense deductions		170,000
Net operating margin		$ 129,000
Add: Other revenues		
Interest	$ 2,000	
Rentals—net	250	
Dividends	500	
Other	50	
Total other revenue		2,800
		$ 131,800
Less: Other deductions		
Loss on sale of fixed assets	$ 500	
Minor adjustments—prior years	100	
Total other deductions		600
Net Margins		$ 131,200

Exhibit B

STATEMENT OF OPERATIONS AND MARGINS OF AN AGRICULTURAL MARKETING COOPERATIVE

Produce marketed	$1,700,000	
Inventory increase or decrease	80,000	
Gross realization		$1,780,000
Less: Purchases from U. S. Government	$ 500,000	
Customers accommodation transfers	5,000	505,000
Balance produce marketed for patrons		$1,275,000
Less: Inbound freight and other charges	$ 100,000	
Conversion and Handling		
Costs	25,000	
Revenue	5,000*	
Administrative expense	15,000	
Financial expense	5,000	
Total net deductions		140,000
Net realization		$1,135,000
Less: Advances made to patrons		
Members	$ 950,000	
Nonmembers	150,000	1,100,000
Undistributed proceeds		$ 35,000

*Indicates red figure

Exhibit C

STATEMENT OF OPERATIONS AND MARGINS OF A COOPERATIVE DOING A MARKETING BUSINESS ON A COMMISSION BASIS

	Head	Commission	
Commission revenues			
Cattle—Car	1,700	$1,300.00	
—Truck	2,900	2,900.00	
—Buying		75.00	
—Yard traders		.50	
	4,600	$4,275.50	
Calves—Car	1,500	$ 250.00	
—Truck	3,200	1,400.00	
—Buying		250.00	
—Yard traders		1.00	
	4,700	$1,901.00	
Hogs—Car	20,000	$3,500.00	
—Truck	4,000	900.00	
—Buying		5.00	
—Yard traders		.25	
	24,000	$4,405.25	
Sheep—Car	10,000	$1,100.00	
—Truck	22,000	3,200.00	
—Buying		200.00	
—Yard traders		.20	
	32,000	$4,500.20	
Total commission revenues			$15,081.95
Less: Expenses			
Itemize			10,000.00
			$ 5,081.95
Add: Other Revenue—Itemize			250.00
Net Margin			$ 5,331.95

Exhibit D

CONDENSED STATEMENT OF OPERATIONS AND MARGINS OF AN AGRICULTURAL COOPERATIVE FUNCTIONING BOTH AS A PURCHASING AND MARKETING COOPERATIVE

Purchases by patrons		
Plant and direct		$7,500,000
Less: Returns and allowances	$ 20,000	
Outbound freight	150,000	170,000
Net		$7,330,000

Detailed as follows:

Purchases by patrons—direct—net	$ 900,000	
Less: Cost of purchases by patrons—direct—net	800,000	
Gross Margin—direct shipments		$ 100,000
Purchases by patrons—plant—net	$6,600,000	
Less: Cost of purchases by patrons—plant		
Ingredients—net	$5,200,000	
Outside storage and handling	10,000	
Demurrage	1,000	
Inventory adjustment—physical	10,000	
—market	20,000	
Hedging operations—ingredients	5,000	
Bags, tags, and twine (package cost) ..	400,000	
Conversion and handling expenses—net	300,000	
Total cost of plant output	$5,946,000	
Gross margin—plant shipments		654,000
Produce marketed—net	$1,000,000	
Less: Conversion and handling, selling and administrative costs	500,000	
Gross realization	$ 500,000	
Add: Other revenue	5,000	
	$ 505,000	
Less: Advances to patrons	450,000	
Undistributed proceeds		55,000
Gross margin and undistributed proceeds—all operations		$ 809,000
Less: Distribution expense (per schedule)	$ 30,000	
Administrative expense (per schedule)	150,000	
Financial expense (per schedule)	15,000	
Total expense distribution		195,000
Net operating margin		$ 614,000
Add: Other revenue		
Interest	$ 2,000	
Rental—net	250	
Dividends	500	
Bad debt recoveries	100	
Other	50	
Total other revenue		2,900
		$ 616,900

Less: Other deductions		
Loss on sale of fixed assets	$ 500	
Minor adjustments—prior years	100	600*
Net margins and undistributed proceeds		$ 616,300

* In instances where it is desirable to indicate the net results of marketing and purchasing separately, these items of expense would be allocated, and the form of the statement should be altered to reflect in parallel columns, marketing, purchasing, and combined operations.

ACCOUNTING FOR DEPARTMENT STORES

By

J. L. Simon *

Brief Description of Business

Whether a store is situated on Main Street or Fifth Avenue, if it sells a diversified assortment of merchandise directly to the consumer and keeps a central management control of all operations, it is classified as a department store. It has become popular to think of such a store as an aggregation of all the retail shops in one's vicinity. To visualize this conception completely, we must take into consideration the diverse problems which a small neighborhood store must encounter. For example, a retail shop generally exercises the following minimum functions: the buying of properly styled merchandise in a suitable price range; the selling of this merchandise and the selection and training of sales personnel; and control over routine expenses, such as alterations, rent, light, heat, delivery, payroll, and advertising.

The department store, however, as a result of steady growth and competition, has taken on additional features and activities beyond the scope of speciality shops or even variety chain stores. For instance, it is axiomatic to expect "good service" from department stores. Returns are promptly accepted without offending the sensibilities of the customer. Famous literary personalities autograph book purchases; banking facilities are at hand; browsing about departments is free, not to mention the comforts of air conditioning. Some stores even maintain their own manufacturing units for direct distribution through the store.

The organization of a department store is usually on a functional basis, and directed by executives who are charged with definite responsibilities. This plan may be illustrated by a condensed and simplified form of organization chart, as shown in Figure A.

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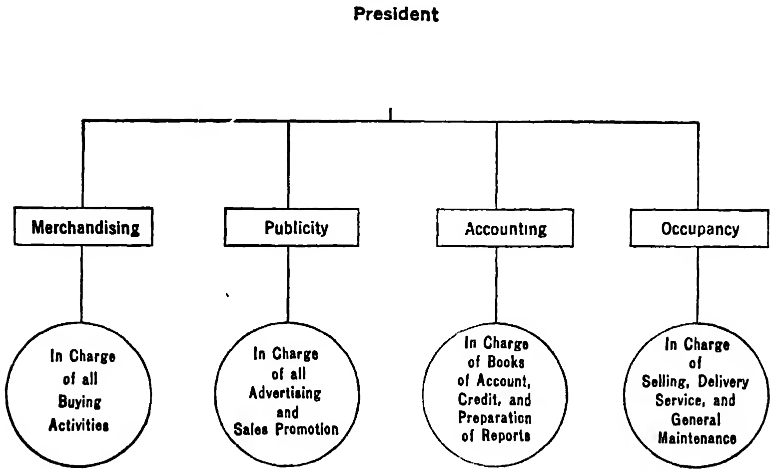

Figure A.

Theory of Accounts

The accounting problem for income and expense distribution differs in several respects from that of any other type of retail distribution unit. It is almost a universal practice for the medium and large department store to group all expense items under a functional classification. Thus the functional headings may include all or part of the following categories: selling expenses, buying expenses, delivery expenses, store maintenance, publicity expenses, administrative expenses. If required, these categories may be further subdivided to include a separate division for shipping expenses, receiving expenses, accounting expenses, and any other type of expense distribution that the management may deem requisite.

To maintain efficient control of a store, it is necessary that the store executive obtain full information concerning the detailed operations of each department in the store, and to provide these data, allocation of all income and all expenses must be made departmentally. Of course it is a matter of simple accounting routine to charge the proper department for all *direct* department expenses; but the problem becomes more involved when a method must be found to prorate all indirect expenses equitably to the various departments. The methods that have been adopted by various department stores will be discussed in the following paragraphs.

The Sales Dollar

Under this method, indirect expenses are prorated according to sales volume. The relative percentage of each department's sales to the total sales is taken, and the complete expense account is spread departmentally on that basis. This method has the advantage of being simple, inexpensive, and easy to use. Critics of this basis, however, point to its arbitrariness, and to the fact that department managers dispute the equity with which certain charges are placed against their departments.

The Contribution Plan

Under this method, the usual conception of prorating indirect expenses is dispensed with. A department contribution statement includes all those expenses which would not exist if the department were eliminated. The author of this plan, Mr. Carlos B. Clark, of the J. L. Hudson Company of Detroit, indicated the underlying purpose of his idea by the use of two terms now famous in the lexicon of department store accounting, namely: escapable expenses and inescapable expenses. These two word concepts are kept in mind when categorizing expenditures from the point of view of the store management as a whole.

Escapable expenses are those incurred in running the department, such as sales clerks, delivery expenses, and direct departmental advertising. *Inescapable expenses* are those that are indirectly connected with the department and would continue even if the department were eliminated, such as rentals, occupancy, and building maintenance.

The chief criticism leveled at this idea is that due to individual differences in store operation, no definite standard exists as to what is to be considered an escapable or an inescapable expense.

Cost Analysis Plan

This plan provides for scrutiny of all indirect expenses in order to provide a means of distributing these items to the departments that have actually used these expenditures. A few examples will illustrate the method used.

Type of Indirect Expense	*Suggested Basis Used for Prorating to Departments*
Credit and collections	Number of charge sales
Delivery costs	Analysis per order or weight
General selling expenses	The sales dollar
Accounts receivable department	Per line on monthly statement or salesline
Rent	Number of square feet occupied
Accounts payable department	Number of purchase invoices

These examples illustrate some of the most troublesome and common items, which are too often relegated to a department that should not justly be charged with the expense.

The cost analysis plan is advisable wherever practicable. The expense incurred in the acquisition of the data for allocation purposes must, of course, be weighed against the advantages derived from this procedure. In many of the indirect expenses simple calculations are necessary to reflect accurate department distribution, as in the case of rent and other occupancy expenses. However, once the number of square feet is properly subdivided among the departments, the monthly charges remain the same, thus making it easier and less expensive to allocate than the sales dollar method. Furthermore, a count of the number of charge sales for the purpose of allocating the accounts receivable expenses is not as time-consuming as it appears. For, inasmuch as the auditing division makes a department sales abstract for the purpose of determining the department income, a unit count becomes necessary of each ticket for the purpose of accounting for each sales check number. Thus, in many instances synchronization of auditing functions can pave the way for the adoption of the cost analysis method with but little additional time involved.

Leased Departments

Another distinguishing feature that the theory of accounting for department stores must take into consideration is that some stores do not finance or fully control each unit of the enterprise. Instead, certain divisions of the store are leased to other entrepreneurs and an arrangement by contract is provided for as a means of compensation to the store owner. These contracts take various forms, but the usual bases for payment to the lessor are: (1) net or gross sales, (2) a fixed rental, (3) net or gross sales with pro-

vision for minimum payment, and (4) a profit-sharing arrangement.

No matter what the conditions of the contract provide, the general ledger should contain a clearing account for the final net income from leased departments. The sales and expenditures of such departments are specially earmarked and so segregated as to neither distort the gross profit percentages nor unfairly state the expense items. The net income from leased departments is shown under Other Income in the profit and loss statement.

Accounts Required

Management in a department store requires a system of accounts so organized as to reflect accurately, not only the cost of goods sold, but a functional or other expense distribution as well, for each department and for the store as a whole. This overall picture of the store is supported by a network of department subsidiary accounts, which are set up to conform with the general ledger controlling accounts. Thus, for example, if the Sales account is designated as number 700, and Sales Returns as 701, the subsidiary sales department accounts may be classified in the following manner:

	Sales	Sales Returns
Department 1	700 A	701 A
Department 2	700 B	701 B
Department 3	700 C	701 C

With the use of the retail method of inventory control, it is customary to prepare monthly profit and loss statements. The cost of goods sold section provides for the merchandise purchase accounts, inward transportation, and alteration costs. Such alteration or service costs exists only in some departments. The men's clothing, furniture, and rug departments are examples of such instances.

Operating Expenses

In order to secure proper control of costs and to determine readily the causes for profit and loss in a department, a division of accounts along functional lines is usually made as a more efficient means of measuring activity and responsibility than the usual general classification of accounts adopted in small retail shops. An index of the cost of doing business in any one department becomes

more graphic and purposeful when such a grouping is arranged.

A good example presents itself in the case of payrolls. Merely classifying payrolls as a general operating expense does not give it as much meaning as it would have were it subdivided in this manner:

Occupancy and Maintenance Expenses—(functional group)

Payroll—Superintendent
Payroll—Elevator Service
Payroll—Maintenance

or

Buying Expenses (functional group)
Payroll—Purchase Director
Payroll—Departmental Buyers

In the small store, where the cost of analyses is not warranted, the classification of accounts is set up in its usual form or natural listing. A more or less typical chart of such accounts would include such items as payrolls, officers' salaries, delivery costs, alteration costs, taxes, interest, advertising, insurance, depreciation, and miscellaneous administrative and general expenses. The numbering of the accounts could follow simply and consecutively, beginning with 10 or 100.

The National Retail Dry Goods Association in one of its manuals on account classification, urges its members to adopt a method of numbering accounts advocated by the Controllers' Congress. Complete adoption of this system would establish uniformity and would therefore be a valuable aid to accurate statistical measurement. Under this method, in either a medium-sized or large store, each account is given three different numerals. The first number indicates the functional character of the account; the second number is for the natural account name, and the third indicates the subdivision of the natural account. To illustrate:

Functional Account	*Account Number*
Selling Expenses	60
Natural Division of Account	
Payroll	01
Subdivision of the Above Natural Account	
Drivers	01

Thus, if it were listed on the trial balance, it would appear as follows:

60-01-01 Payroll Drivers

However, in the presentation of the chart of accounts demonstrated a consecutive numbering system is indicated. Subsidiary accounts would retain the number of the controlling account, with an added number or alphabetical designation to distinguish its relationship.

Chart of Accounts
For the Balance Sheet

Account No.	*Current Assets*
101	Cash in Banks
102	Cashier's Petty Cash Fund
103	Notes Receivable
104	Accounts Receivable—Regular Charge
105	Accounts Receivable—Installment
106	Accounts Receivable—Miscellaneous
107	Merchandise Inventory
108	Marketable Securities
	Fixed Assets
201	Land
202	Buildings
203	Furniture, Fixtures and Equipment
204	Delivery Equipment
205	Investments
	Deferred Assets
301	Supplies
302	Prepaid Insurance
303	Prepaid Taxes
304	Bond Discount Unamortized
305	Organization Expenses

Account No.	*Current Liabilities*
401	Notes Payable—Banks
402	Notes Payable—Others
403	Accounts Payable—Merchandise Purchases
404	Accounts Payable—Sundry
405	Accrued Payroll
406	Accrued Taxes
407	Accrued Interest
	Fixed Liabilities
501	Bonds Payable
502	Mortgage Payable
	Reserves and Capital
601	Reserve for Possible Losses on Notes Receivable
602	Reserve for Doubtful Accounts
603	Reserve for Depreciation of Buildings
604	Reserve for Depreciation of Furniture and Fixtures and Equipment
605	Reserve for Depreciation of Delivery Equipment
	Capital
701	Capital Stock
711	Surplus
731	Profit and Loss

Chart of Accounts
For the Profit and Loss Statement

Account No.	*Merchandising*
801	Sales—Cash
802	Sales—Charge
803	Sales Returns and Allowances
804	Merchandise Purchases
805	Freight and Expressage Inward
806	Service and Alteration Costs
	Buying Expenses
1001	Payroll—Buyers
1002	Traveling
1003	Outside Office Buying Costs

Account No.	
1004	Miscellaneous Buying Expenses
	Occupancy and Maintenance
1201	Payroll
1202	Repairs
1203	Insurance
1204	Air Conditioning
1205	Light, Heat, and Power
1206	Depreciation
1207	Interest
1208	Supplies

Account No.	*Other Income and Other Deductions from Income*
1401	Dividends on Investments
1402	Interest Income
1501	Interest Expense
	Selling and Delivery
901	Payroll—Selling
902	Payroll—Delivery
903	Traveling
904	Supplies—Selling
905	Depreciation on Delivery Equipment
906	Parcel Post and Expressage Outward
907	Insurance—Delivery
908	Miscellaneous Selling Expenses

Account No.	*Promotion and Publicity*
1101	Payroll
1102	Advertizing—Newspaper and Magazine
1103	Advertising—Direct Mail
1104	Advertising—Radio
1105	Advertising—Agency Fees
1106	Miscellaneous Advertising Expenses
	Administrative
1301	Payroll—Executive Office
1302	Payroll—Accounting
1303	Professional Services
1304	Office Supplies
1305	Telephone and Telegraph
1306	Taxes
1307	Insurance
1308	Miscellaneous Expenses

Operating Statements

The management looks to its operating statements to reveal the following information: (1) the department income and expense of each department, and (2) the relationship of costs to sales within each department.

The operating statements in classified form present the following data by departments: sales, purchases, cost of sales, gross profit, stock turnover, inventories, operating expenses, and net profit or loss.

Statement of Income and Profit and Loss

	Total	Dept.	Dept.	Dept.	Dept.	Dept.
Sales						
Less: Returns and Allowances						
Net Sales						
Cost of Goods Sold						
Inventory at beginning of period						
Net Purchases						
Inward Transportation						
Total						
Inventory at end of period						
Cost of goods sold						
Alteration Costs						
Cost of Sales						
Gross Profit						
Operating Expenses						

	Total	Dept.	Dept.	Dept.	Dept.	Dept.
SELLING AND DELIVERY EXPENSES						
Salaries—Selling						
Traveling						
Supplies						
Delivery Costs						
Miscellaneous						
Total						
BUYING EXPENSES						
Salaries—Buyers						
Outside Office Buying Costs						
Traveling						
Miscellaneous						
Total						
PROMOTION AND PUBLICITY EXPENSES						
Salaries						
Advertising—Newspapers and Magazines						
Direct Mail						
Radio						
Supplies						
Miscellaneous						
Total						
OCCUPANCY AND MAINTENANCE EXPENSES						
Salaries						
Repairs						
Insurance						
Air-conditioning and Maintenance						
Light, Heat, and Power						
Depreciation						
Interest						
Supplies						
Miscellaneous						
Total						
ADMINISTRATIVE EXPENSES						
Salaries—Executive Offices						
Salaries—Accounting Offices						
Professional Services						
Office Supplies and Expenses						
Miscellaneous						
Total						
Total Operating Expenses						
OTHER INCOME AND DEDUCTIONS						
Dividends Received on Investments						
Less: Interest Expense						

	Total	Dept.	Dept.	Dept.	Dept.	Dept.
NET PROFIT BEFORE PROVISION FOR FEDERAL TAX						
PROVISION FOR FEDERAL INCOME TAX						
NET PROFIT FOR THE PERIOD						

THE BALANCE SHEET

A representative balance sheet for a department store is formulated as follows:

ASSETS

CURRENT ASSETS
- Cash in Banks
- Cash on Hand
- Notes Receivable
- Accounts Receivable—Customers
- Accounts Receivable—Miscellaneous
  - Total
  - Less: Reserve for Doubtful Accounts
- Merchandise Inventory—Based upon the retail method of inventory valuation
- Marketable Securities—at Cost
  - Less: Reserve for Marketable Securities

FIXED ASSETS
- Land
- Buildings
- Furniture, Fixtures, and Equipment
- Delivery Equipment

Less Applicable Reserves

DEFERRED ASSETS
- Supplies
- Prepaid Insurance
- Prepaid Taxes
- Bond Discount Unamortized
- Prepaid Expenses

LIABILITIES AND CAPITAL

CURRENT LIABILITIES
- Notes Payable—Banks
- Notes Payable—Others
- Accounts Payable—Merchandise Purchases
- Accounts Payable—Sundry
- Accrued Expenses and Taxes

FIXED LIABILITIES
- Bonds Payable
- Mortgage Payable

CAPITAL STOCK

SURPLUS

Except for the valuation of inventories, most of the items appearing on the balance sheet are more or less typical of many busi-

nesses. In retail enterprises it is not always necessary to take a physical inventory or maintain perpetual inventory records to arrive at a departmental inventory at any given date.

To determine the value of inventory based on the retail method of inventory control, the opening inventory is valued at retail selling prices, accompanied by the percentage of markup. A similar process takes place for all subsequent purchases. When merchandise is marked up or down, the amount of increase or decrease at the sales price is recorded on the stock records. Sales in total are also regularly entered on the department stock sheet. By computing the accumulated markup on the merchandise which is simultaneously recorded with the purchase records, the cost of the inventory can be computed. This method is accomplished by arriving at the complement of the accumulated markup as shown on the monthly department purchase and stock records and applying it against the inventory at sale prices. The resultant figure is the inventory at cost under the retail method of inventory control. This method of establishing the value of inventories is used by many stores in their annual financial statements. Furthermore, under the Internal Revenue Code, merchants are permitted to use the "retail method" of pricing inventories in the preparation of their Federal income tax returns.

Bookkeeping Methods

The controller or administrative executive in a department store receives his information from the following main body of records:

The general ledger—Where the departments are numerous, the controlling accounts act as summaries for all income and expense accounts. A department subsidiary ledger is maintained. The same principle applies to asset and liability accounts, as in the case of Accounts Receivable and Accounts Payable.

Accounts receivable ledgers—Basically, there are two types of department store accounts receivable routines where accounting machines are used, namely, the Unit Plan and the Dual Plan. The unit plan produces at least one or more duplicate copies of the original customer's statement, with or without a collated ledger record posted at the same operation. In the dual plan, however, there is an original and, if necessary, a duplicate statement posted

in detail in addition to an original ledger record posted in a separate operation in skeleton that is, in terms of ticket or sales items only. An auxiliary device, sometimes used after the machine operation, involves the use of filming equipment which photographs statements, and the filmed records are filed for future reference.

An accounts receivable routine is illustrated in Figure B.

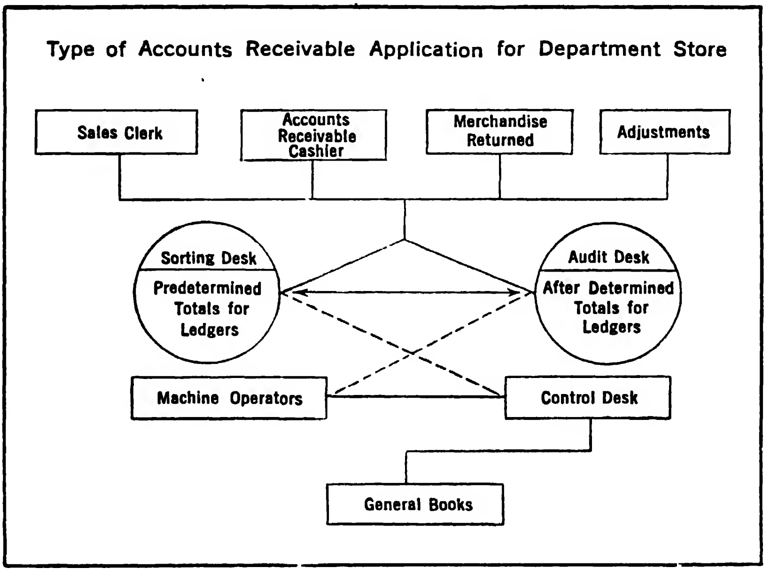

Figure B.

Inventory records—The use of the retail method of inventory control makes it necessary for each department to maintain its own inventory records. By this method, a system of percentages is used and related to the selling price of merchandise. When purchases are made, the amount of the selling price is translated into a markup percentage or vice versa. Then tags are made out, marked, and the cost price, sales price, and percentage of markup is recorded in the department stock book. From the department sales analyses records, the sums applicable to the different departments are entered. Various other activities affect the subsidiary inventory stock sheets. When for the purpose of quickly disposing of certain items it becomes necessary to reduce selling prices, an order is given to do so on a markdown slip, and the reduction is entered in the stock record. Conversely, a markup order is recorded when it is desired to restore the former selling prices to the same merchan-

dise. Employee discounts are treated in the same manner as markdowns. The method of arriving at the inventory at cost is indicated in the following chart.

Department A. Month of ———— 19

	Cost	Retail	Markup	Percentage of Markup
1. Opening Inventory	$70,000.00	$100,000.00	$30,000.00	30.00
2. Net Purchases	10,000.00	14,000.00	4,000.00	28.57
3. Freight, express and cartage, inward	250.00			
4. Additional markups, less additional markup cancellations		850.00	850.00	
5. Total inventory plus additions	$80,250.00	$114,850.00	$34,850.00	30.343
6. Net Sales		$ 12,000.00		
7. Markdowns, less markdown cancellation		650.00		
8. Total deductions		$ 12,650.00		
9. Inventory at retail		$102,200.00		
10. Inventory at Cost	$71,189.45			

Computation of Inventory at Cost Under the Retail Method of Inventory Control

Accumulated Percentage of markup is 30.343%.
The complement thereof is 69.657%.
69.657% × $102,200.00 (inventory at retail prices) = $71,189.45 (inventory at cost under the retail method of inventory control.)

Perpetual inventory records may be kept independently of or as a supplement to the retail method of inventory control. This method is especially advisable for jewelry and other items of a costly and unstandardized nature. Unit control of merchandise may also be maintained over certain items when management believes it important to know the quality or type of item which is selling rapidly or moving slowly.

Payroll records—Careful and complete personnel files are retained in addition to complete earning records, together with all other data necessary to conform with rulings of various government agencies. The ability of sales persons is graded by comparing the sales of each employee to the total sales of the department where he or she is employed. When the weekly payroll is prepared it is further analyzed and recorded departmentally and functionally in the general books of account.

Accounts payable—Purchase bills may be segregated as to merchandise purchases and miscellaneous items, and further classified by departments. The purchases for each department is entered on

separate department sheets so as to avoid further analysis by departments.

If the voucher register system is used, a machine application provides a routine whereby the purchase journal and the remittance statement are made out with the same machine operation. Three copies of the remittance statement are made with check attached. One copy is forwarded to the payee, another filed numerically, and the third is placed with the creditor's paid bills. The check is not made out until the invoices become due, when discounts, anticipation, and other deductions are computed. The check and check register are also made out with the same machine operation. Another machine routine combines the recording of the remittance statement, accounts payable ledger record, and the department purchase journal at the same time. This plan is particularly adaptable when discounts are prefigured and all invoices properly approved before posting. A variation of this application can be achieved if the accounts payable system calls for a register of approved invoices, a department purchase record, and a remittance advice to be made out with the same machine operation. The check and the check register is completed simultaneously when the remittance advice has been approved and properly vouched.

The budget—Very often an integral part of the accounting plan is the budget, which is the source of many operations and which serves as a plan for future operations. The budget is not a dogmatic document which allows for no deviation. On the contrary, allowance is made for unusual situations which may call forth a change in policy. Of great importance in department stores is the merchandise budget, which is prepared monthly or seasonally, or even weekly, as the situation warrants. With the use of the retail inventory method, all estimates are submitted in terms of sales prices. The buyer then knows how much he or she is permitted to purchase for the period. The budget for buyers is based on estimated sales, and buyers are not permitted to go beyond their allotment, unless, of course, unusual circumstances alter the plan. The budget for expenses is based on estimates originally submitted by the managers in charge of the different functional groups. Comparisons are made weekly and monthly, and sometimes daily to determine actual performance with the budget plan as a guide for future action.

ACCOUNTING FOR DISTILLERIES

By

J. Harold Smith *

Brief Description of Business

Distilleries are engaged in the production and sale of alcohol in several forms. The distillery may produce industrial or beverage alcohol, the latter consisting of such items as whiskey, gin, brandy, or rum. A whiskey distillery produces only a "type," such as rye or bourbon. The distillery may also operate a blending plant, which is a distinct activity, in which case the products are called blends. Blend formulas are numerous, and a blend may be the parent of as many as fifty brands. Brands, however, may be either straight whiskies or "blends," and are the trade names by which the ultimate consumer indicates his preference.

The products of the distillery are placed in bonded warehouses where they must remain until the Federal internal revenue tax is paid. As this tax is several times the amount of the cost of the product, the products are allowed to remain "in bond" until actually required for use. However, the tax must be paid within eight years from the date of distillation. The Federal government has an impressive array of taxes collectible from distilleries.

No industry in the United States is more strictly controlled by governments than is the distillery industry. The distillery may not begin operations until the government has approved the distilling plant, and once in operation it may not discontinue distilling, even for a few days, without a permit to do so, and to forestall any possibility of illicit operations the government removes a vital part of the equipment. If the distillery plans to operate at a different rate of capacity than that originally, or previously, specified, it files "Notice of Change in Capacity." Until the distillery product is

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tax-paid it must remain in a bonded warehouse, generally located on the distillery property, to which the distillery has no key, and may not be visited by distillery employees except as permitted by the government's storekeeper-gauger, who alone has the key.

All phases of the industry are governed by laws and regulations of the various Federal and other government bodies interested in the control of the industry. These are voluminous and ordinary caution suggests that persons in the industry keep fully informed so as to avoid incurring penalties for transgressing regulations. Regulations prescribes the type of barrel to be used, and if the distillery "dumps" barrels of its own product in its blending or bottling plants, the identifying numbers must be destroyed, and the barrels cannot be used again in the alcohol industry.

Each distillery must have a distinctive designation mark on its barrels. The barrels are serially numbered from 1, and there is no repetition of numbers; some distilleries are now using barrels numbered in the millions.

Theory of Accounts

Accepted practice in the theory of accounting for profit or loss in the distillery industry is reasonably uniform, in that all distilleries must furnish certain information to the various government bodies having jurisdiction, and their accounting systems are devised for prompt and easy preparation of the numerous reports specified in the regulations.

Some distilleries sell the entire output to one rectifier or blender, which may be another distillery. Other distilleries dispose of their product as barreled whiskey or as bottled case goods. In addition some distillers bottle goods for customers, and derive other income from storage, insurance, or other charges on merchandise stored or handled for customers.

From its accounting the distillery seeks to ascertain the following:

1. The income, costs, and expenses for each type of whiskey produced.

2. The income and expenses of other activities carried on in connection with distillery operations. For it is reasoned that the distillery organization is composed of the essentials necessary to: (a) manufacture alcohol, (b) solicit the sales, (c) ship and bill

the sales, (d) collect the accounts, and (e) generally administer the business.

Distilleries segregate expenses so as to furnish the necessary information indicated by the above as they apply.

3. As a statistical aid, to control manufacturing departments and ascertain a basis for cost of product, the actual direct elements of cost for each type of product are segregated. In the case of large distilleries expenses may be gathered into burden control accounts to facilitate the distribution of expenses prorationed to the several types, and still further to blending and bottling departments.

Records pertaining to the product show quantities in proof gallons.

4. Production costs are those composed of: (a) the cost of raw materials including barrels, (b) taxes on production of whiskey, (c) payrolls and (d) manufacturing overhead.

Raw materials consist of grain, sugar cane, molasses, etc. Rye, corn, and malt are the principal raw materials used in whiskey production. The government requires monthly reports, on forms it provides therefor, covering grain consumption and inventories. It also checks quantities produced against the average production of the formula used. Production is expressed in wine gallons of 100 degree proof.

Accounts Required

The development of accounting systems for distilleries must consider the requirements of Federal and other government bodies which must be furnished with reports periodically. They must be so devised that the information required therefor is readily obtainable, and further must furnish the distillery with information for (1) analysis of types of sales and cost of those sales, and (2) division of expenses into those for each classification of sales, and then into the particular divisions involved in the manufacture of the product, the solicitation of the sales, shipping, and billing of the sales, the collection of the accounts, and the general overhead of the business.

Building an acceptable basis of account designations for a distillery involves the creation of specific segregations with definite spreads of numeral symbolizations. For instance:

Numbers	Will Designate
101–299	Balance sheet accounts
300–399	All accounts involving income
400–499	Cost of sales
500–550	Raw materials in production
551–599	Payrolls
600–699	Overhead or Burden
700–799	Selling expenses (using alphabetical symbols for locations)
800–899	Administration and General expenses (using alphabetical symbols for locations)
900–949	Nonoperating miscellaneous income
950–999	Nonoperating miscellaneous expenses

A further breakdown of accounts is indicated hereunder:

500–	Raw Materials in Production
– 1	Barley malt
– 2	Corn
– 3	Rye
– 4	Wheat
–11	Coal
–12	Barrels
551–	Payrolls (by plants)
– 1	Distilling
– 2	Cooperage
– 3	Dry grain
– 8	Warehousing
– 9	Shipping
–10	Power plant
–11	Printing plant
–12	Repairs and maintenance
–13	General
	(Blending and Bottling payrolls use other symbols)
600–	Burden (by plants)
– 1	Depreciation—Buildings and equipment
– 2	Repairs and maintenance
– 3	Insurance
– 4	Taxes
– 5	Power plant
– 6	Printing plant
– 7	Plant office expenses
– 8	Manufacturing supplies
– 9	Manufacturing licenses

Selling Expenses

The distillery selling expenses will naturally follow the type of organization maintained and the nature of the sales. The expenses are broadly concerned with the cost of:

1. The office organization charged with the supervision of the sales
2. The compensation and expenses of salesmen
3. Liquor licenses and solicitor permits, branch office rentals, outside warehouse expenses, foreign agency expenses
4. The research and promotion expenses. These generally consist of advertising circulars, catalogs, novelty gifts, publicity and research necessary to further the company interests
5. Entertainment expenses
6. Gratis merchandise

Billing and Shipping

In the case of distilleries generally the costs of billing and shipping are segregated into specific classifications. In this industry the cost of packaging is a part of the cost of the product, that is, barrels are included in the cost of the alcohol; and cartons, cases, bottles, etc., are included in the cost of bottling the goods. Trucking, freight, and express outward costs are assembled and charged against sales expenses. The clerical labor and supplies involved in preparing shipping documents, invoices, etc., are generally included in the distillery office expenses.

Credit and Collection Expense

The size of the individual distillery will determine the procedure for handling these phases of the business. In small distilleries there may be only one or two customers whose financial stability makes such expenses unnecessary. In the medium-sized distillery the work is usually part of the treasurer's activity, while in the large concerns with many customers the credit department may have a manager and clerical staff.

Overhead

The overhead of the distillery falls roughly into the following classifications:

1. Administrative and general
   a. Payrolls for executive and clerical staffs at the general offices and branch offices, not directly applicable to sales or production expenses
   b. Payrolls covering distillery plant supervision, charged to distillation prorata distribution
2. Rent, light, and depreciation, etc.
   a. Rent and light for general offices, as applicable
   b. Depreciation on office building and equipment. (Depreciation on plant buildings and equipment is charged to distillation.)
   c. Maintenance and repairs of office building, (plant maintenance and repairs is charged to distillation.)

d. Insurance covers the office building and contents, compensation, surety, fidelity bonds, etc. (Insurance on plant is charged to distillation, and on whiskies in bond against the inventories.)

3. General expense
   a. Travel and entertainment expenses of executives and assistants. (Other similar expenses are charged directly to the department concerned.)
   b. Office stationery and supplies, postage, telegraph and telephone, photostat section expenses (not charged to a department), miscellaneous, applicable only to administrative activities.
   c. Subscriptions and dues, charity
   d. Director fees; Registrar Transfer Agent fees
   e. Professional fees—laboratory fees, accountants, attorneys. (Collection fees are included in the expenses of credit and collection unit.)
4. Taxes (Insofar as possible taxes are charged to the operating departments, and in the case of inventory in bond they are added to the inventory.)

Operating Statements

Distilleries in general seek to secure from their operating statements: (1) the results of effort in each type of sale, and (2) the relation in each department of costs to net sales.

Statement of Earnings and Expenses

SALES (net of allowances)
  Sales of whiskey and other spirits
  Sundry
    Total
	Supplementary schedules to show kinds of sales:
	Bulk
	Barreled
	Cased

COST OF SALES
  Manufacturing own products
  Sundry
    Total
	Subsidiary schedules as required

GROSS PROFITS

OPERATING EXPENSES

Selling

Payrolls (managers, office staff, and salesmen)
Sales commissions
Entertainment
Travel expenses
Stationery, printing, office supplies
Postage
Telephone, telegraph
Liquor licenses and salesmen permits
Rent
Outside warehouse expense
Sales promotions
Gratis merchandise
Advertising expense
Total

Administration and General expenses
- Payrolls—executive and office
- Rent and light
- Stationery, printing, office expense
- Postage
- Telegraph, telephone
- Insurance
- Credits and Collections
- Provision for bad debts
- Travel expense (executive and general)
- Taxes
- Professional fees, accountants, attorneys
- Director fees
- Registration Transfer Agent
- Subscriptions and dues
- Donations and charity
- Photostat section expense
- Laboratory fees
- Provision for depreciation
  - Total
    - Total operating expenses

NET PROFIT FROM SALES
Miscellaneous income (detailed as required)
Special charges (detailed as required)
NET PROFITS BEFORE INCOME TAXES

BALANCE SHEET

The usual balance sheet classifications found on the books of the distillery are as shown hereunder:

ASSETS

CURRENT ASSETS
- Cash
- Receivables—notes and acceptances
- Accounts receivable—less reserve for doubtful accounts
- Inventories (may require a great many subaccounts)

CASH SURRENDER VALUE OF LIFE INSURANCE POLICIES
INVESTMENTS
DEFERRED
- Deposits on purchase contracts
- Deferred accounts (subdivisions as required)

PLANT
- Buildings, lands and improvements less depreciation reserves
- Equipment, less depreciation reserves
  - (subaccounts for both as required)

GOOD WILL

LIABILITIES AND CAPITAL

CURRENT LIABILITIES
- Notes payable
- Due to banks

Mortgages payable (current year portion)
Accounts payable
State Taxes (subclassified as desired)

MORTGAGE PAYABLE

ACCRUALS

Taxes, Insurance, Payrolls — Subaccounts for all as required

COMMITMENTS

RESERVES subaccounts as required for state and county taxes, contingencies, advances, price adjustments, etc.

CAPITAL

Capital stock
Capital surplus
Surplus (subaccounts as required)

The assets and liabilities of the distiller are valued in the usual manner. Certain of the items peculiar to the business require special comment.

Inventories

Distillery inventories generally fall into six groups: (1) raw materials, that is, grain, coal, barrels, (2) distillation in process, (3) barreled goods in bonded warehouse, (4) barreled good—tax paid in blending or bottling plants, (5) cased bottled goods, and (6) packing supplies.

In the distillery business the value of the product to a considerable extent depends upon its age. Therefor immediately after it is made and barreled it is transferred to a bonded warehouse, usually owned by the producing distillery. Proper aging requires the product to remain in the warehouse for several years. Obviously this requires a considerable amount of capital, and the distillery must have funds with which to continue its operations.

The very large distillery organization may obtain part of its financing from the issuance of bonds and stocks. However, one of the recognized methods of obtaining funds is borrowing, giving inventory or accounts receivable as security. Loans on inventory are based on the current market value of the whiskey according to its age. The collateral may be represented by warehouse receipts covering specified barrels identified by number, which belong to the distillery or are subject to its lien.

Warehouse receipts constitute a claim against the issuer, requiring delivery of the specified whiskey; they are negotiable, and

precautions must be taken to safeguard the receipt forms against improper and fraudulent use.

Because of the government interest in whiskey until it becomes tax paid, whiskies are gauged once for proof when barreled and again when withdrawn from warehouse. The government has established standards of allowances for evaporation or soakage, and based thereon the tax amount is determined on the taxable gallons at the time of regauging.

Whiskey formulas are expected to produce certain quantities of alcohol from definite quantities of grain. If on completion of distillation there is a shortage in excess of the determined quantity allowable the Federal internal revenue tax is immediately payable.

When whiskey is sold the customer may leave it in the warehouse until he is ready to use it or sell it to someone else. The basis for storage charges on such whiskey varies with the terms of sale, but the customary practice is to allow the charges for storage, insurance, etc., to accumulate until the whiskey is withdrawn. The presence of the whiskey in the warehouse is sufficient guarantee of the payment of such charges.

Barreled whiskey is usually sold on a guaranteed basis. Terms of sale usually provide for a partial payment in cash at the time of sale, and a note or trade acceptance for the remainder. The notes are usually renewed at the end of three months upon payment of a definite part of the balance in cash plus accrued interest. In this procedure there is a clause in the contract of sale permitting the distillery to pledge as collateral for loans the security he is holding for the unpaid balance of each note or trade acceptance. The warehouse receipts representing the barrels sold are retained by the vendor until he has received complete payment, then transferred to the purchaser. Adequate and careful records must be maintained of such transactions.

Bookkeeping Methods

Distillery bookkeeping systems generally include the following records to which transactions are posted from books of original entry.

The general ledger controls all other ledgers and records; and contain the records of assets, liabilities, capital, and surplus. In certain instances the operating and expense accounts are included

in the general ledger. From these ledgers the data are obtained for preparing the balance sheet and operating reports.

Accounts receivable ledgers record in detail transactions with customers, and contain data for preparation of customers' statements.

The accounts payable ledger records transactions with creditors.

The voucher register is supported by a card index listing vouchers paid each creditor. Either procedure may be adopted, generally depending on volume of transactions.

Inventory records are maintained for raw materials used in making the products, for the finished product in barrels, and far cased goods. Separate inventories are also maintained for such miscellaneous supplies as bottles, labels, and cartons.

Fixed assets is a record of the various buildings, machinery, and plant equipment, arranged by class of assets.

The insurance record, generally very active, records the day by day changes in inventories in each warehouse, etc.

Payroll records are maintained in a form to provide the essential data for distribution of costs, and to compile the statements required for government authorities under the social security laws.

The crop book is a detailed record of every barrel of product. Usually it is arranged in serial number sequence in accordance with data taken from the government form No. 1520, Storekeeper-Gauger's Report of Spirits Gauged. Generally it is a large, heavily bound book, built to withstand many years of handling.

Daily report of distillery operations usually furnishes complete data as to alcohol produced, and is the source of most of the information for compiling cost records.

For the proper control of production the following reports and records are suggested:

1. Raw Materials Inventory
2. Distillation in Process—materials consumed
3. Distillation in Process—grain losses
4. Distillation in Process—taxes
5. Distillation Payrolls and Overhead
6. Distillation Completed
7. Daily Report of Distillery Operations (mentioned above)
8. Payroll Control Record
9. Power Plant Control
10. Burden Control

11. Barreled Goods—inventory
12. Crop Book (mentioned above)
13. Dried Grain Ledger and Inventory Record

The foregoing present only a few of the numerous forms and reports used in the production of alcohol, and while the information provided is for the large type of distillery organization, by re-arrangement or omission of inappropriate material, it can be adopted for use by the small plant. A brief explanation of some of the foregoing follow:

The Raw Materials Inventory form is provided to furnish the essential data required for preparing the government reports and to show the history of transactions in the particular inventory item. A sheet is used for each item in the inventory, such as rye, corn, malt, barrels, and coal, entering into the distillation processes.

The entries on these records derive from the usual sources. Those under Withdrawals are from the daily report of distillery operations, and inventory adjustment entries.

At the end of the accounting period, or month, the quantities entered under Withdrawals are recapped according to the "types" in the account column. The amounts are then entered, having been determined on the basis of average unit cost of the item. The total Withdrawals are checked against the quantity and amount charged to Distillation in Process—Materials Consumed.

Physical inventories disclosing discrepancies from the raw materials inventory are adjusted as explained under distillation in process—grain losses.

Distillation in Process—Materials Consumed form is used to record the materials charged against the cost of distillation, and the following captions are suggested:

Distiller (in the event that there is more than one plant)
Type Inspection (indicates the month and year of production)
Column headings are:
Report No. Dates (subheadings—start, finish) Columns for each kind of grain used (subheadings for each—bushels, amount) *Total Grain* (bushels, amount) *Taxes Coal* (subheadings—tons, amount) *Barrels* (subheadings—number, amount) Several blank columns, *TOTAL AMOUNT Results in Proof Gallons*

Quantities are entered from (7) Daily Report of Distillery Operations. Amounts are entered from the Raw Materials Inven-

tory (1) at the end of the month, having been determined from the average unit price.

The totals of all these forms must agree with the total "Withdrawals" on the Raw Materials Inventory (1) records.

The coal charged to materials consumed is the quantity used in accordance with the Daily Report of Distillery Operations. In the event that the distillation power was procured from the company power plant, the charge would be based on a prorata distribution, similar to that described under Burden Control (10) for the distribution of overhead expenses.

The Distillation in Process—Grain Losses form is used to record grain losses, whenever and wherever discovered, and properly distribute them against production. If only one type is produced this record is not necessary. When several types are produced grain losses cannot properly be arbitrarily charged against any one type unless the particular grain was used exclusively therein. When total grain losses for the period have been ascertained they are then prorated to the types produced on the basis of known quantities charged against the several types, and Raw Materials credited. For statistical information the grain losses are shown in the distillation completed record in the section provided therefor.

Distillation in Process—Taxes—Generally the several states impose taxes on the production of alcohol, usually only a few cents per gallon. At one time the Federal government imposed parity and process taxes on grains consumed, and there is always the possibility that similar taxes or newly devised taxes may be imposed.

Production taxes are payable to the state in which the distillery is located. The tax basis is proof gallons produced, reports of which are required periodically by the states. Generally the production tax is payable in advance. Any shortage in prepayment is covered when the periodical report is sent to the taxing authority. If the production was less than anticipated, the state does not refund the difference, but permits it as a carry forward to the next report.

For accounting purposes, when production taxes are prepaid a charge is made to Prepaid Production Taxes, and each month this account is credited with an amount based on the production, of proof gallons, and the charge against production costs.

In some cases the production taxes are not included in the amount

of the sale, but are deferred until such time as the goods are removed from bond, that is, control of the distillery. In such instances the practice is to set up the amount in a Deferred Account Receivable. In the event that the distillery reacquires these goods by cancellation of sale or repurchase from the vendee, these taxes would be credited to the Deferred Accounts Receivable and charged back to the Barreled Goods Inventory.

The Distillation Payrolls and Overhead record is used to accumulate charges applicable to all types of product, and would not be needed if only one type was made. Entries therein are transfers from other records.

In the types column are to be entered the names of all the types produced during the period, and in Production will be entered the number of barrels of each type, and the percentage to the total production. When the percentages have been ascertained the total amount of payrolls, direct, is multiplied by the percentage and the result entered against the type in the corresponding column in the distribution section; the same procedure being carried out for the remaining columns. When this procedure is completed and the amounts applying against each type are determined they are transferred to the respective distillation completed accounts under Payrolls and Prorated. This method greatly reduces the detail work of distributing expenses over the products.

The Distillation Completed form is provided to accumulate the total cost of a type of whiskey. The suggested information to be provided is as follows:

Type *Inspection* (month and year of production)
Column headings are as follows:
Date *Reference* *TOTAL* *Raw grains* *Grain Losses* *Taxes* *Coal* *Barrels* *Payrolls* (direct, indirect columns) *Proration* (with subcaptions: Burden, Expenses) *Production Results* (subcaptions: Barrels, Wine Gallons, Proof Gallons, Yield) *Unit Costs* (subcaptions: Per Barrel, Per Proof Gallon)

Generally the account will be developed by the transfer of totals accumulated in other records. The total value in this account represents the value of the type of product made during the season or crop, that is, the value that has been charged to barreled goods inventory in the warehouses.

If a distillery produces several types of whiskies it is impractical

to undertake to make specific charges against any type for costs beyond the raw materials entering the process. The proration method is therefor suggested.

The Daily Report of Distillery Operations report furnishes a complete statement of the daily operations concerning one type of whiskey. As many reports are required as types are produced. The face of the report gives data as to the type of whiskey produced, and quantities of raw materials consumed, result in wine gallons, proof gallons, and tax gallons. The back of the report is printed to contain inventory data, showing receipt of raw materials that day, numbers of receiving tickets, etc., all of which data is the basis of entries covering withdrawals of materials from inventories, and charges against the barreled goods inventory. The materials section gives a general picture of the receipts and issues of the raw materials required for the distillery operations.

Payroll Control record is provided for the purpose of entering thereon all plant payrolls and provides a grouping of subcontrol accounts for the payrolls. It would not be needed in a "one-type" distillery. In so far as necessary the subcontrol accounts are supported by further distribution, for example, the distribution column headings for the distillation division payrolls may be:

DIRECT Handling Raw Grain, Treating Raw Grain, Malting, Mashing, Yeasting, Fermentation, Distilling, Cistern Room Total Direct

INDIRECT Foremen and Supervisors (Columns for expenses) Total Indirect

The payroll form should be designed to furnish the proper breakdown for each of the subcontrols. Some of the payroll groupings indicate items of a distributable nature, chargeable against productive divisions after all expenses belonging to the distributable group, such as power plant, have been accumulated.

In the distribution of the distillation payrolls to the different types of whiskey, as described in connection with distillation payrolls and overhead, it will be noted that only the total amounts for direct and indirect payrolls are charged against the different types. When it is desired to charge each of the several distillation labor operations to the various types of whiskey, simply apply the same percentage calculations to the payroll costs of the individual operations.

Power-Plant Control is one of the distributable accounts in which various applicable expenses are accumulated until the end of an accounting period, then prorated against production, bottling, etc., in the same manner as is done with the burden accounts.

In those plants where there is no power plant, coal is charged directly against the batches, as provided for in daily report of distillery operations and the labor is included in the distillation payrolls, as firemen, etc.

The Burden Control record is suggested to simplify the distribution of expenses against the various products. The amounts entered on the record are accumulated in and transferred from other records, such as the voucher register, payrolls, and general journal. Separate totals are determined for Burden and Expenses, which are then distributed to the several types of product on the distillation payrolls and overhead form, heretofore described, on the percentage of total production basis.

Barreled Goods inventory form is provided to maintain an inventory control of whiskey in barrels, also known as bulk whiskey. Suggested general captions for this record are:

Distiller (to be used when company operates more than one plant, or purchases from other distilleries)
Type (the kind of whiskey, such as Bourbon, Rye, etc.)
Brand (used only if production is for that particular brand)
Inspection (the month or season and year in which produced)
Location (the specific floor, etc., where located in the warehouse)
Warehouse (the particular warehouse in which product is stored)

The column captions will be those necessary to record the information concerning each barrel. The form should be adaptable to different procedures—sometimes a continuous run may produce several thousand barrels of a single type during a month. A separate sheet is suggested for each month if the product is produced almost daily. The recording of the entries into the warehouse in large quantities, for example; several hundred barrels daily, would require only one line for each day's production. The disposition will probably present an entirely different condition as withdrawals from the warehouse may be in small lots, requiring several times the number of entries for receipts. To avoid frequent transfers of the inventory from sheet to sheet as items are withdrawn a subsheet may be used. Properly designed, these may

record the history of as many as 500 barrels individually, and indicate immediately the numbers of the barrels still on hand.

The Crop Book is—to the oldtime distiller—akin to the Bible. The record is constructed from the government form 1520, Storekeeper-Gauger's Report of Spirits Gauged, prepared by the government representative at the time barrels are filled, with complete details as to contents of each of as many as 50 barrels, per sheet.

Fortunately the crop books does not require the complete data shown on the government report, but it does show the contents and proof of each barrel, and where stored. Furthermore, it shows transfers between and within warehouses, warehouse receipt numbers, date that charges begin, date that taxes were paid, to whom sold, to whom shipped, and any other data the individual distillery deems important.

The crop book is an important record in the distillery business, as it is referred to for many years, in instances, after the whiskey recorded therein was made, and after other records pertaining to it have been packed away or otherwise disposed of. The Crop Book is not finally stored away until every barrel recorded therein has been withdrawn. Books that have been in use twenty years are not rare.

The Dried Grain Ledger and Inventory record may be maintained if volume warrants. When distillation has been completed there is a wet mash residue called slops. For the purpose of obtaining a saleable commodity it is dried and otherwise prepared to produce a cattle feed known as dried grain. The principal charges against this commodity are payrolls, heat, light, and power, and supplies consisting of bags, and sometimes a syrup.

Dried grain is a distillation by-product, and the net income derived from its production and sale is properly a credit to production costs. If recorded as other operating income it becomes subject to income taxes immediately, as an item of current income, whereas it is hardly properly income until the product from which it originated has been sold.

If the distillery conducts bottling operations, as many do, it will require such records and reports for this activity as the following:

Inventory—Cased Goods
Perpetual Inventory of Bottling Tanks
Inventory—Bottling Straight Whiskey

Finished Blended Goods in Cases
Payrolls and Overhead
Bottling Report for Bottling Not in Bond
Bottling in Bond Report

Materials used in the bottling processes are: whiskies, rum, brandies or gin, whether straight or blended, empty cases, cartons, bottles (several sizes) strip labels, caps, bells, commercial labels, cautions, corks, stamps, wrappers, etc.

Bottle sizes are: gallons, half-gallons, quarts, pints, half pints, for American whiskies, and fifths and tenths of a gallon for Scotch and Irish types of whiskies, and rums made in the United States.

Liquor cases are usually packed in 12 quarts and fifths, 24 pints, 48 half-pints, or tenths. The contents are 3 gallons for quarts and subdivisions thereof, and 2.4 gallons for fifths and tenths. The additional cost of bottling the small units is immediately apparent.

Some of the distilleries conduct blending operations which require still other records and reports, some of which are:

Daily Inventory of Whiskies and Other Spirits in Barrels
Report of Whiskey and Other Spirits Shipped to Blending Plants
Report of Whiskey, Gin or Alcohol Received
Dumping Record
Daily Report of Blending Operations
Blending Raw Materials
Blending in Process—Taxes
Blending in Process—Losses
Blending Payrolls and Overhead
Finished Blended Goods in Barrels

As heretofore stated, forms devised for the distillery business should have in view the necessity for frequent and prompt reports to the government. Each distillery may differ in some way from other distilleries, even those under the same general control, and the procedures and forms used should be adapted to the particular situation.

ACCOUNTING FOR EDUCATIONAL INSTITUTIONS

By

THOMAS A. WILLIAMS *

BRIEF DESCRIPTION OF THE SERVICES RENDERED

An educational institution has nothing to sell. Its function is to render a service to the community. The absence of the profit motive is easily recognized from the fact that income from charges to students for tuition is generally insufficient to cover the cost of the service rendered, and has to be supplemented by endowments, gifts, etc. The primary objective of its economy is to provide the finest educational facilities and instruction possible out of the income at its disposal, at a minimum cost to the students, so that deserving young persons will not be deprived of the opportunity to secure an education.

Some such institutions are tax supported, while others are privately endowed, but even those in the latter category are quasi-public in character. Consequently, the accountability of the management is not to owners or stockholders, but to the community in whose interest it is operated.

The plant and facilities of the institution are not to be considered as an investment upon which revenues must be earned. An educational institution is not a business—in the sense that it is run for gain—and its management is not concerned with accounting for profit. Its dividends are paid in human values. The administrators, as custodians of public funds, however, are accountable for their proper and wise expenditure, in accordance with the intention of donors, and are bound to the trust that they will be spent only for educational purposes. Therefore, some form of business economy must be adopted, not in the strict sense a money-profits economy, but one in which the scientific rules of trade are partially applied nevertheless.

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Administrators have no right to assume the prerogative of the general public by spending sums in excess of those already given, in anticipation that their views and judgment as to the obligations upon society will be approved, and large deficits made up. For the extent and manner in which an educational institution shall serve its community is to be determined in the light of what collective society conceives to be its strictly moral duty of providing higher education for a certain class of its members.

Theory of Accounts

The marked difference between commercial accounting and that for educational institutions is that the former places emphasis upon the refinements of profits computation, while the latter more generally is concerned with accounting for the proper expenditure of trust funds in accordance with the intention of the donors, and with the control of current expenditures to keep them within the income provided, so that it serves the educational objectives of the institution to which it relates.

The fundamental principles of commercial accounting and economics should be adhered to, modified and conformed to the object in view. Sound accounting principles are as readily applicable to recording and interpreting transactions in a college as in a business institution.

The transactions of an educational institution naturally fall into three principal divisions, and what uniform classification has been attempted has been mainly under these heads, namely, (1) endowments, (2) plant, and (3) current operations. The administrators, being in a position of public trust, are responsible and accountable for funds, and the form in which the transactions are exhibited is based upon fundamental principles of fund accounting.

The exposition of the financial condition at a given date is paramount and is accomplished through the "fund" balance sheet. What the income was and how it was spent is shown by supporting schedules, the elements of profit and loss having no appropriate place in the statements.

The financial statement, or balance sheet of a college, departs from the traditional form used by commercial firms. In commercial accounting the owners' equity in the net assets of the business is reflected through the net worth account, the solvency of the busi-

ness being thus determined for credit and other purposes. In an educational institution each fund is treated as a separate financial entity, dedicated to the purpose for which the trust was created, and a clear distinction is maintained between each fund entity.

In the balance sheet, therefore, self-balancing sections are presented for each fund entity, exhibiting the assets, liabilities, and fund balance. Thus, though presented for convenience as a single balance sheet, these self-balancing sections are in reality a series of independent balance sheets having no immediate relation to each other.

The purpose of an educational institution balance sheet is essentially administrative in character and does not exhibit total institutional net worth or financial ability. Rather, in conjunction with and supplemented by statements of revenues and expenditures, it presents the origin, disposition, and realization of resources, the extent to which these resources have been assigned, mortgaged, or expended, and reflects through the current funds section the amount of current surplus available at a given time.

Endowment, plant funds, etc., generally have restrictions placed upon their use. The day-by-day activities of the institution, therefore, can only be carried on through the use of current surplus, i.e., the excess of assets over liabilities pertaining to general unrestricted funds. All income is shown in one statement of income and all expenditures in one statement of expenditures. The tying link between these statements and the balance sheet is the statement of current surplus.

Accounts Required

In providing for the accounts of an educational institution it must be remembered that it acts as trustee, owner, and operator combined. It owns certain funds and physical properties outright, is responsible for the operation of certain of these properties, and is trustee of many and various types of funds, some of which can be expended, others of which must be kept intact and the income only used. Essentially then its accounts should be designed to gather information which can be used to safeguard investments, conserve resources, and account for the many distinct fiscal entities in the shape of separate funds. Therefore these accounts should be so arranged that statements can be prepared showing:

1. A "fund" balance sheet, which represents the financial position of each fund at a given date.

2. Statements of fund transactions, showing, between any two balance sheet dates, the increases or decreases that have occurred in the funds available for use as well as an explanation of how the changes came about. These statements are prepared in the following form:

Statement of current surplus.
Statement of restricted current funds.
Statement of loan funds principal.
Statement of endowment and other non-expendable funds.
Statement of funds held subject to annuity agreements.
Statement of unexpended plant funds.
Statement of funds invested in plants.

3. Statements of current income and current expenditures, giving in detail the results of the current operations, which are summarized in the statement of current surplus.

The National Committee on Standard Reports for Institutions of Higher Education, which has made noteworthy and extended research in this field, has recommended that income and expenditures be broken down by source: (1) educational and general, (2) auxiliary enterprises and activities, and (3) noneducational.

Endowed colleges receive, and the accounts should reflect, income from three main sources, i.e., student fees, income on endowments, and gifts. Any net income earned from the operation of residence and dining halls, bookstores, etc., is also available for educational work. Student fees are classified for tuition, laboratory materials and supplies, library facilities, etc. Gifts made to colleges are of two kinds, and the accounts should provide for distinguishing between those which add to the permenant assets of the institution and those designated for current use.

Expenditures are principally divided in the accounts between those incurred: for educational activities in operating the institution; in the operation of auxiliary departments, for example music; in the operation of residence and dining halls, etc.; and in raising funds or in other miscellaneous noneducational activities. What may be auxiliary departments in some institutions are thought important enough in others to be conducted as a part of the regular educational work, counting toward the regular college degree. In such instances the expenditures for these departments will be included and classified in the accounts among those for educational activities. The reader is referred to the model statement of current

expenditures at the end of this chapter for details in the classification of the various types of expenditures mentioned.

Distinction should be made in the accounts and statements between capital and current expenditures. By capital expenditures are meant those having a material value and a relatively long life as distinguished from those incurred during the current period for operating expense and cost. Also capital receipts, such as for endowment, plant, and borrowed money, should be segregated from income in the accounts and statements.

It should be borne in mind that the transactions of restricted current funds should be included in the statements of current income and expenditures. This is so because, while expended for specific purposes, yet the restricted current funds are classified in the accounts among the current fund group.

A conservative and modified use of the accrual basis should be used for both income and expenditures so that the resulting current surplus will represent an equity in highly liquid assets. It might be said that this modified basis is one that combines the cash and accrual ideas to suit the accounting purposes and conditions peculiar to educational institutions.

Depreciation is not taken on the educational plant. It is reasoned, soundly, that the operating charge for depreciation would increase the cost of educating a student when as a matter of fact the fixed assets were donated for the purpose of reducing the cost, and that the replacement of the asset must come from other donations. However, the plant used for auxiliary income-producing enterprises, such as dining halls and residence halls, should be depreciated. Such activities should be self-supporting as they are characterized as business or commercial activities. Depreciation should also be taken on property which represents the investment of endowment and other nonexpendable funds for the purpose of maintaining intact and inviolate the principal of the permanent funds so invested. If depreciation is taken on any type of real property it should be funded by segregating cash or other liquid assets in corresponding amount.

Financial Statements

Several typical statements for an educational institution follow, in the form in which they are customarily presented:

Blank University
Balance Sheet—as of (Date)

Assets

Current Funds:			
General:			
Cash		$ 500.00	
Notes receivable	$ 3,500.00		
Accounts receivable	2,000.00		
	$ 5,500.00		
Less reserve for doubtful	500.00	5,000.00	
Temporary investments		5,000.00	
Inventories		1,000.00	$ 11,500.00
Restricted:			
Cash		$ 1,000.00	
Temporary investments		300.00	1,300.00
Total current funds			$ 12,800.00
Loan Funds:			
Cash	$ 300.00		
Notes receivable	1,000.00		
Accounts receivable	200.00		
Temporary investments	1,500.00		3,000.00
Endowment and Other Nonexpendable Funds:			
Cash		$ 250.00	
Due from current fund—general		2,000.00	
Investments		300,000.00	
Real estate mortgages		50,000.00	352,250.00
Plant Funds:			
Unexpended:			
Cash	$ 500.00		
Temporary investments	25,000.00	$ 25,500.00	
Invested in plant:			
Land	$100,000.00		
Buildings	50,000.00		
Improvements other than buildings	20,000.00		
Equipment	10,000.00	180,000.00	205,500.00
Agency Funds:			
Cash		$ 50.00	
Temporary investments		250.00	300.00
Total Assets			$573,850.00

Liabilities

Current Funds:		
General:		
Due to endowment and other nonexpendable funds	$ 2,000.00	
Notes payable	500.00	
Accounts payable	6,000.00	
Bank overdraft	1,000.00	
Unappropriated current surplus	2,000.00	$ 11,500.00
Restricted:		
Unexpended balance		1,300.00
Total current funds		$ 12,800.00

LOAN FUNDS:				
Loan funds principal				3,000.00
ENDOWMENT AND OTHER NONEXPENDABLE FUNDS:				
Principal of funds with income designated for:				
Unrestricted purposes			$300,250.00	
Restricted purposes:				
Chair of medicine		$ 12,000.00		
Plant maintenance		10,000.00		
Student aid		30,000.00	52,000.00	352,250.00
PLANT FUNDS:				
Unexpended:				
Reserve for:				
Retirement of indebtedness		$ 5,000.00		
Plant additions		15,000.00		
Replacements		5,500.00	$ 25,500.00	
Invested in plant:				
Mortgage notes payable		$ 45,000.00		
Accounts payable		2,500.00		
Net investment in plant:				
From gifts and accumulations	$125,500.00			
From current funds	7,000.00	132,500.00	180,000.00	205,500.00
AGENCY FUNDS:				
Balance of				300.00
TOTAL LIABILITIES				$573,850.00

STATEMENT OF UNEXPENDED PLANT FUNDS
Year Ended (Date)

Particulars	Funds For: Plant Additions	Renewals and Replacements	Retirements of Indebtedness	Total
Balance, beginning of year	$ 2,000.00	$4,500.00	$2,000.00	$ 8,500.00
Additions:				
Gifts and grants from private sources	25,000.00	—	—	25,000.00
Transferred from current funds (statement of current surplus)	—	—	4,000.00	4,000.00
Earnings and profits on investments	—	1,000.00	250.00	1,250.00
Total additions	$25,000.00	$1,000.00	$4,250.00	$30,250.00
	$27,000.00	$5,500.00	$6,250.00	$38,750.00
Deductions:				
Expended for plant additions, etc.:				
Land	5,000.00	—	—	5,000.00
Buildings	7,000.00	—	—	7,000.00
Loan paid from plant funds	—	—	1,250.00	1,250.00
Total deductions	$12,000.00	$ —	$1,250.00	$13,250.00
Balance, end of year (to balance sheet)	$15,000.00	$5,500.00	$5,000.00	$25,500.00

Statement of Current Surplus
Year Ended (Date)

Balance, beginning of year:				
General (unrestricted) funds			$ 3,000.00	
Restricted funds			5,000.00	$ 8,000.00
Additions:				
Excess of current income over expenditures				
Current income (statement of current income):				
Educational and general	$567,000.00			
Auxiliary enterprises and activities	90,000.00			
Other noneducational income	21,000.00		678,000.00	
Current expenditures (statement of current expenditures):				
Educational and general	564,300.00			
Auxiliary enterprises and activities	84,600.00			
Other noneducational income	23,000.00		671,900.00	6,100.00
				$14,100.00
Deductions:				
Current funds transferred to endowment funds			$ 5,300.00	
Current funds transferred to plant funds			4,000.00	
Endowment investment income transferred to principal accounts			1,500.00	10,800.00
Balance, end of year				$ 3,300.00
Consisting of:				
General current fund surplus—unappropriated				2,000.00
Restricted fund balance				1,300.00
Total				$ 3,300.00

Statement of Current Income
Year Ended (Date)

Educational and General:		
Student fees:		
Literary tuition	$250,000.00	
Music school tuition	10,000.00	
Home economics tuition	6,000.00	
Laboratory	5,000.00	
Matriculation	2,000.00	
Summer school	22,000.00	$295,000.00
Endowment investments:		
Unrestricted	$ 12,500.00	
Restricted	2,500.00	15,000.00
Private gifts and grants:		
Permanent grant from X Foundation	$225,000.00	
Other grants from boards, etc.	10,000.00	
Other gifts	5,000.00	240,000.00
Sales and services of educational departments:		
Agricultural experiment station	$ 10,000.00	
Piano rental	4,000.00	
Pipe organ rental	1,300.00	15,300.00

Other sources:		
Income on investments of current funds	$ 200.00	
Rent on institutional property (net)	1,500.00	1,700.00
Total educational and general		$567,000.00
AUXILIARY ENTERPRISES AND ACTIVITIES:		
Residence halls		$ 10,000.00
Dining halls		15,000.00
Student hospital		5,000.00
Book store		6,000.00
Laundry		2,500.00
Motion pictures		1,500.00
Intercollegiate activities		50,000.00
Total auxiliary enterprises and activities		$ 90,000.00
OTHER NONEDUCATIONAL:		
Scholarships, fellowships, and other student aid:		
Endowment investments		$ 6,000.00
Gifts		15,000.00
Total other noneducational income		$ 21,000.00
Total current income		$678,000.00

STATEMENT OF CURRENT EXPENDITURES
Year Ended (Date)

EDUCATIONAL AND GENERAL:		
General administrative and general expense:		
General administrative offices:		
President's office	$ 20,000.00	
Business office	35,000.00	
Registrar's office	10,500.00	
Total general administrative offices	$ 65,500.00	
General expenses	25,000.00	$ 90,500.00
Instruction:		
College of Arts and Sciences	$375,000.00	
Music School	4,500.00	
Home Economics Department	3,000.00	382,500.00
Libraries		45,000.00
Operation and maintenance of physical plant:		
Supervision	$ 9,000.00	
Janitor service	5,000.00	
Repair of college buildings	7,800.00	
Care and maintenance of campus	2,500.00	
Heat, light, water, power, and gas	14,000.00	
Watchmen	3,000.00	
Insurance	5,000.00	46,300.00
Total educational and general		$564,300.00
AUXILIARY ENTERPRISES AND ACTIVITIES:		
Residence halls		$ 12,500.00
Dining halls		17,000.00
Student hospital		4,000.00

Book store	5,500.00
Laundry	2,300.00
Motion pictures	1,300.00
Intercollegiate activities	42,000.00
Total auxiliary enterprises and activities	$ 84,600.00
OTHER NONEDUCATIONAL EXPENSE:	
Interest on loans	$ 2,500.00
Honor graduate scholarships	7,500.00
Fellowships	10,000.00
Prizes	3,000.00
Total other noneducational expense	$ 23,000.00
Total current expenditures	$671,900.00

BOOKKEEPING METHODS

The bookkeeping system of a college is in principle essentially the same as used in a commercial enterprise. The exceptions are that it should be modified to meet the nonprofit objectives of an educational institution and that it should utilize a multiplicity of self-balancing groups of accounts to segregate the transactions of the various funds which are independent of each other.

When setting up the accounts for these funds it is necessary that they reflect the origin of receipts, the expenditures for departmental operations and the balances available for future expenditures. Accounts and records should also reveal restrictions placed on funds whose principal is invested and from which the income alone may be used, as well as any other restrictions.

The following are the records usually kept:

The General Ledger contains the control accounts for the other ledgers and records. The general ledger should contain self-balancing sections, each containing asset accounts, liability accounts, and fund-balance accounts, income and expenditure accounts being included in the current fund accounts.

The five principal fund groups recommended by the National Committee on Standard Reports are as follows:

1. Current Funds
   a. General, i.e., unrestricted as to use
   b. Restricted—only expendable for specific purposes indicated
2. Loan Funds, i.e., the principal of which is not for investment but for loaning purposes
3. Endowment and other nonexpendable funds
   a. Endowment funds proper—income alone to be used
   b. Other funds functioning as endowment
   c. Annuity funds

4. Plant Funds
   a. Unexpended
   b. Invested
5. Agency Funds, which include funds belonging to others which are in the custody of the institution

The Budget should conform in arrangement and classification to that used in the accounts and financial reports. It should be prepared annually and cover all current financial operations and funds. Its purpose is to limit expenditures to available revenues. Approved by the Board of Trustees, it is an integral part of the bookkeeping system and should be incorporated therein by the use of estimated income and appropriation accounts. Subsidiary income and appropriation ledgers may be utilized to accomplish this.

Cash accounts should be maintained separately in the bank for endowment cash, building fund cash, etc. The bank account which is used for current operating transactions should contain only cash which is available for current purposes.

The Accounts Receivable—Students—Subsidiary Ledger contains all accounts with students. It is controlled by a general ledger current account similarly captioned. It is desirable to keep the amounts due from students separate from those due from others for purposes of accounting, valuation, collection, etc.

The Subsidiary Restricted Current Funds Ledger contains income accounts and accounts with each restricted fund representing expendable gifts and other receipts for specified purposes. It is desirable to place proper safeguards around income, the use of which has been restricted by the donors so that their wishes and intentions will be carried out. Complete information about the gifts included in each fund should be kept.

The Investment Ledgers are made up of tickler cards of different colors for stocks, bonds, real estate, notes and mortgages, etc. A separate card should be used for each security. In the case of bonds, for example, the card should show the name of the security and the fund, date of maturity, when callable, interest rate, amount of each payment and when payable, etc. It should provide for recording the principal amount at par and cost, the reserve for premium amortization, and the income at different dates.

The cards should be filed alphabetically by type of security, but segregated as to pooled fund and special funds, the latter being

subdivided by funds. When adding machine list trial balances are drawn at the end of each month they should balance with the general ledger control account Investments in the endowment and other nonexpendable fund section.

The names and functions of the books of original entry are similar to those found in a commercial concern. The design of these records, however, is changed to meet the conditions obtaining in an educational institution for they can be used as the bases for assembling accounting information particularly adapted to such institutions. Provision should be made for an adequate requisition and purchase order system and a record should be maintained to keep track of orders placed, filled, and paid for. This procedure is necessary so that budget appropriations can be compared against actual orders placed and amounts expended. For the latter purpose it is desirable to have an appropriation ledger, in which accounts are kept for each department.

A record of individual salary payments should be kept, segregated as to instruction, administration, and regular clerical staff. It should provide for recording transactions for a number of years. In it should also be recorded, the year, the annual salary, and the actual monthly payments, any deductions, such as retirement allowance premiums, and the net amount received. The name and title of the employee should be noted as well as the department in which he is employed. By filing these cards alphabetically by departments an adding machine list will serve as an analysis of salary expense by departments.

ACCOUNTING FOR ELECTRICAL MANUFACTURERS

By
LEON H. CURTICE *

BRIEF DESCRIPTION OF BUSINESS

The electrical manufacturing industry produces equipment for three basic purposes: (1) generation, (2) transmission, and (3) utilization.

Generators, turbines, power-house control devices, and large-scale switchboards are typical of equipment in the first class. Cable, transformers, and meters, are transmission equipment which is involved in the delivery of electric current from the point of generation to the point of use. The utilization group includes the devices which are the means whereby the electric current is utilized as mechanical, thermal or lighting energy, such as motors and their controls, household appliances, and incandescent lamps.

The ultimate purchasers of generating and transmitting equipment are the electric utilities and other industrial companies. Utilization equipment finds its way to either industrial or household users. Manufacturers of electric equipment range from the very smallest, where the manufacturing operation is apt to be one of assembly only, to the larger companies, where the tendency is to become self-contained.

An important factor in the sale of generating and transmitting apparatus is the necessity for the manufacturer to install the equipment in the plant of the purchaser. In such cases delivery has not been completed until the apparatus is in satisfactory operation in the customer's plant. This plan not only injects an element of uncertainty, but involves inventory inflation. Some contracts of this sort may take from a few months to several years from start of

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manufacture in the producer's plant to completed delivery in the customer's plant.

On the other hand, the manufacturer of household appliances is engaged in a straight production and merchandising business and finds his principal problem that of styling and the consequent risk of obsolescence. Such a manufacturer must produce at low cost and sell at a figure that will induce the largest number of people to buy at a profit to the manufacturer.

The manufacturer of generating and transmission equipment generally sells directly to the user, although some types of transmission materials are sold through wholesalers. But the manufacturer of utilization equipment, especially household appliances, sells either to the wholesaler or the retailer, as the channel to the user. Accordingly, the appliance manufacturer is unable to control to any great extent the distribution conditions for his goods. The usual practice is to set a retail price which becomes the list price. The wholesaler receives a discount from this list and the retailer a lesser discount.

The electrical manufacturer finds it necessary to build a large part of the apparatus to special order. Sometimes this merely requires the adaptation of standard equipment to some unusual requirement imposed by conditions or by the special demands of the customer. At other times this special equipment may involve the designing of entirely new electrical machinery or devices for the control of such machinery.

Patents have a vital part in the electrical manufacturing field. Some of them are so essential that they virtually control certain branches of the business. In other cases patents cover a different, but not necessarily better, way of accomplishing a desired result.

Theory of Accounts

The general purpose of the accounting procedures of the electrical manufacturer is quite similar to that of other manufacturers. He wishes to know (1) his present financial position, (2) how he reached that position, and (3) how he should proceed in the future.

1. Although it is important that the net worth and the working capital be known, it is of equal importance that the accounts disclose responsibility for the custodianship of the assets of the business.

2. The course taken in reaching the present financial position will be indicated by the profit and loss statement and analyses derived from the accounts used to compile that statement. The diverse character of the products of the electrical manufacturing industry and the varied means used to distribute these products make it essential that the accounting procedures provide basic data in such form as afford a breakdown of income and outgo according to these varied lines of product and channels of distribution.

3. Businessmen in the industry go beyond the mere historical field. They are anxious to know how to proceed in the future. Each manufacturer must fix his prices for future sales, must determine what lines will be the most profitable, needs a guide to the expansion and contraction of the business as a whole or in some particular branch, and wants to lower costs and gain higher profits.

The accomplishment of these goals for his accounting brings to light two very difficult and distinctive problems—accounting for product development and the allocation of selling and administrative expenses by lines of product.

Considerable expenditures for research, engineering, and special tools are required as a preliminary to manufacture. These may be made as a part of the general development of a line of goods or may be necessary to fill a particular order from a customer who has a particular problem that standard devices will not satisfy.

The allocation of selling and administrative expenses by lines of product is so difficult that many manufacturers forego that refinement and use the old method of a percentage of manufacturing cost. The inaccuracy of this average method has impelled many manufacturers to make studies resulting in a much more accurate allocation. The adoption of this newer method has not only provided more desirable information, but has given management needed control and a tool for the direction of a program of expansion or contraction.

Cost Methods

The variety of conditions in the electrical manufacturing industry makes it impossible to give more than a few fundamental thoughts on the costing practices of this industry. The companies which comprise this industry differ greatly in volume of business handled and, more importantly, range from those producing one

item in one size to those producing many different types of equipment in many sizes.

Shop cost covers expenditures made to produce goods and place them at the shipping-room door. The elements of shop cost are:

Direct Material enters directly into the product or is directly contributory to the conversion or fabrication of such material.

Direct Labor is the wages paid for labor applied to the direct material, where the work performed is a well-defined manufacturing operation.

Development includes expenditures for research, engineering, special tools, and patents acquired as a preliminary to manufacture.

Overhead is indirect manufacturing expense of every sort not included in the preceding groups of costs.

Manufacturing cost consists of shop cost, as defined above, plus the following elements:

Packing is the cost of boxes and crates in which the finished goods are shipped, together with the labor and expenses incident thereto.

Installation is the cost of material, labor, and expenses incurred in the erection and installation of apparatus at the plants of customers.

Total cost covers the manufacturing cost, as previously defined, together with the selling and administrative expenses.

The assembly of these various manufacturing cost elements is made through the work in process ledger, which is controlled by an account in the general ledger.

Cost systems of the actual cost type are probably the most common in the industry. However, the standard cost plan comes rapidly into more general use, once it is installed, for the cost of operation and the facility with which cost leaks are located is distinctly advantageous. This is particularly true of those manufacturers who produce reasonably standard merchandise or who have repetitive manufacturing operations.

The actual cost plan, when efficiently operated, gives an accurate historical record. The standard cost plan offers a method for determining in advance the cost of goods to be manufactured, provided they are made with materials at the standard price, in standard quantities, and at standard manufacturing conditions for direct labor and indirect manufacturing expenses. Such a standard cost

system then provides for an immediate analysis of any variations from these standards with the consequent opportunity of making immediate correction of any untoward situation. Furthermore, selling prices are set more efficiently through the use of standard costs. However, it is quite evident that standard costs do not give an accurate idea of what has happened in the production of an individual order.

The determination of the overhead and its application to the production is initiated by first determining the normal manufacturing volume, i.e., that portion of the total volume of the industry which the individual manufacturer may reasonably expect over a period of years. The indirect manufacturing expenses required to operate the plant at this normal volume is then computed and apportioned to departments or production centers according to the plant's experience over the same cycle of years and other suitable measures of proration, for example, floor space for rentals. The final step is the allocation of these expenses to the goods produced, and will depend on the plant and production conditions. Methods in use are: (1) percentage of direct labor, (2) direct labor hours, (3) machine hours, (4) percentage of direct material, and (5) percentage of prime cost (labor and material).

The ratio of expense to the direct labor dollars for each production center is the easiest method and is the one in most common use. Logic must be used in considering these measuring sticks if one would arrive at truly accurate distributions. In other words, the manufacturer will select that measuring stick which most accurately shows the way in which the expenses vary for each item or group of items in production.

The allocation of development to production is simple in the case of such expenditures made for a particular customer's order, since this cost will be readily included directly in the costing of the order. But the allocation of the cost of development where the expenditures are a part of the general development of a line of goods requires considerable judgment. For here the problems of timing and of an estimate of volume are pressing. A reasonable time is selected within which to liquidate the expenditures and a fair estimate is made as to the probable number of items to be produced during the period. Either a percentage or a flat amount is then used as the measure for the recovery of these costs.

The customary method of calculating the percentage which selling and administrative expenses bear to the manufacturing cost is simple, and is the method usually adopted in allocating these costs to lines of product. The procedure which many are adopting involves the use of estimates of the distribution of these expenses to the lines of product. The accuracy of these estimates is constantly tested and revised where necessary by the criticism of affected department heads so that after a period of time first-class accuracy may be attained.

Accounts Required

To accomplish these goals certain accounts are required, the number of which depend largely on the size of the business and its character. Naturally the larger the business and the more diverse its nature, the more detailed will be the subdivisions of the accounts. A very small company might be satisfied with an account entitled Manufacturing Plant; most companies would at least require a subdivision for Machinery and Tools; and the largest companies would need even finer classification, such as an account for Ovens and Furnaces. Smaller companies might be satisfied with an account entitled Salaries; other companies would divide these salaries according to the character of service rendered, such as Selling Force; and the largest companies would be obliged to divide these accounts according to departments. All these segregations are needed to facilitate the assignment of responsibilities.

The following list of accounts would require adaptation to the needs of the individual company, but is sufficiently comprehensive for the average electrical manufacturer:

Asset Accounts

111 Land
113 Buildings and structures
114 Machinery and tools
116 Furniture and fixtures
117 Transportation system
118 Patterns and drawings
120 Property other than manufacturing plant
130 Investments
141 Factory inventories
142 Other inventories
143 Notes and acceptances receivable
144 Accounts receivable
145 Accrued dividends and interest

147 Cash in banks
148 Advances to cashiers, agents, and others
151 Notes and acceptances discounted
172 Unliquidated development
174 Deferred charges
180 Other assets

Liabilities, Capital Stock, and Surplus

221 Notes and acceptances payable
222 Accounts payable
224 Accrued expenses
225 Dividends declared and unpaid
241 Notes and acceptances endorsed
250 Reserve for depreciation
261 Reserve for inventory losses
263 Reserve for development and complaints
264 Reserve for losses on accounts and notes receivable
270 Sundry reserves
291 Capital stock
299 Surplus

Income and Charges against Income Accounts

310 Sales billed
330 Cash discounts on purchases
331 Interest received
332 Miscellaneous income
340 Cash discounts to customers
350 Cost of sales billed

Indirect Manufacturing Expense Accounts

411 Salaries and wages—Supervision
412 Salaries and wages—Clerical
413 Salaries and wages—Service employees
421 Fuel consumed
422 Non-durable tools
423 Shop supplies
425 Office supplies
431 Personnel service
433 Packing
434 Defective workmanship
435 Defective purchased material
436 Losses due to errors
439 Telephone and telegraph
440 Postage
451 Maintenance of buildings and structures
452 Maintenance of machinery and tools
453 Maintenance of transportation system
454 Other maintenance expense
461 Depreciation
462 Property taxes
463 Property insurance
464 Accident compensation

465 Other insurance
466 Rentals
480 Power, heat and light purchased
490 Other manufacturing expenses

SELLING AND ADMINISTRATIVE EXPENSE ACCOUNTS

511 Salaries—Officers and department heads
512 Salaries—Selling force
513 Salaries—Engineers
514 Salaries—Outside construction force
515 Salaries—Clerical
519 Salaries—Other
520 Commissions
531 Rent, light, heat, and power
532 Alterations and repairs
533 Telephone and telegraph
534 Postage
535 Office supplies
540 Traveling and entertainment
550 Advertising and publicity
561 Corporate taxes (except Federal income tax)
562 Other taxes
563 Insurance
564 Depreciation
571 Warehouse cartage
572 Packing and shipping supplies
591 Retainers and legal fees
594 Concessions to customers
599 Miscellaneous general expense

MISCELLANEOUS INCOME DEDUCTION ACCOUNTS

621 Interest paid and accrued on funded debt
622 Interest paid and accrued on bank loans
629 Other charges against income
641 Federal income tax
642 Dividends

Profit and Loss Statement

The usual type of profit and loss statement appearing in the industry will take the following form:

PROFIT AND LOSS STATEMENT

Gross Sales Billed		....
Less: Cash Discounts to Customers............		....
Net Sales Billed		....
Cost of Sales Billed		....
Gross Profit		....
General Expenses		
Selling Expenses	....	
Administration Expenses	....	....

Operating Profit		....
Additions to Income		
Cash Discount on Purchases	....	
Income from Securities	....	....
Total Income		....
Deductions from Income		
Interest on Funded Debt	....	
Interest on Bank Loans	....	....
Net Income		....
Deductions from Net Income		
Federal Income Tax	....	
Dividends	....	....
Surplus for Period		....

Balance Sheet

The usual classification found in balance sheets are as follows:

Assets

Current Assets		
Cash		....
Government and other readily marketable securities at cost		....
Notes receivable		....
Accounts receivable less reserve		....
Factory inventories		....
Finished goods at warehouses		....
Total current assets		....
Investments		....
Fixed Assets		
Land		....
Buildings and structures	....	
Machinery and tools	....	
Furniture and tools	....	
Total depreciable assets	....	
Reserve for depreciation	....	
Net depreciable assets		....
Total fixed assets		....
Other Assets		
Patents		....
Unliquidated development *		....
Deferred charges		....
Total other assets		....
Total Assets		....

Liabilities, Surplus and Capital Stock

Current Liabilities		
Accounts payable		....
Federal and other taxes accrued		....

Dividends declared and unpaid		....
Notes and acceptances payable		....
Total Current Liabilities		....
Reserve for Development *		....
Funded Debt		....
Capital Stock		....
Surplus at beginning of period	....	
Surplus for period	....	
Total Surplus		....
Total Liabilities, Capital Stock and Surplus		....

* The asset, Unliquidated Development, represents the balance of expenditures for the development of products or lines, which in theory applies to goods not yet produced.

Reserve for Development is an allocation of surplus to take care of possible underliquidation of development expenditures. This underliquidation may come from (a) excess of expenditures over the estimate, (b) inaccuracies of estimates of expected production, and (c) withdrawal of the line or the product from production before the estimated production has been completed.

Bookkeeping Methods

Books of original entry assume various forms in the industry, although the ledgers are those generally used.

The General Ledger contains nothing unusual. Accounts listed therein may be kept in complete detail or may be controlling accounts, according to the needs of the particular company.

The Accounts Receivable Ledger follows the usual arrangement.

The inventory records may have several divisions, for example:

1. *Raw Material Stores* contains an account for each kind of such material. Of course, what may be raw material for one manufacturer may be a finished part for another. One manufacturer may operate his own foundry, while another may purchase his castings from an outside source.

2. *Work in Process Ledger* is the record to which is posted, according to process or job, the direct labor, material, development, and the proportionate share of the indirect manufacturing expenses, and from which is transferred the total shop cost of the lot of finished goods or finished parts called for by the production order.

3. *Finished Parts Ledger* contains an account for each such part.

4. *Finished Goods Ledger* contains an account for each item of equipment in stock.

The Unliquidated Development Ledger carries accounts for each

type of authorized development, to which are posted the various costs thereof, and credits for the amounts liquidated into production costs.

The Property Record provides a record of the acquisition, depreciation and disposition of each of the major pieces of equipment and of the other fixed assets by classes.

Payroll Records are more complicated now than in the past because of the necessity for providing for reports on, and audits of, social security taxes and compliance with the wage and hour law; the usual data on rates of pay; and other personal information.

For small companies the customary journal and cash book will be ample as the sole books of original entry. Larger organizations vary their practice between using the other books of original entry for direct posting or of summarizing these subsidiary books of entry into the journal and so to the ledgers. Some of the bookkeeping processes are indicated in the section on costing.

ACCOUNTING FOR FARMERS AND RANCHERS

By
ARTHUR SHULTIS *

BRIEF DESCRIPTION OF BUSINESS

Farmers and ranchers are engaged in the production and sale of crops, livestock, or livestock products for the purpose of securing a profit for the operator. The term "farming" as used hereafter includes the activities of farmers and ranchers. The farming business is usually intermingled with the home and personal affairs of the operator so that one of the first tasks in farm accounting is to separate farm business from personal affairs and record the flow of goods, services, and money between the operator and his farming business. Since many single payments cover both farm and personal expense, it is advantageous to have them all pass through the farm accounting system so that they can be divided and charged to the proper accounts. The minimum goal in farm accounting is a profit and loss statement for the farm business as distinguished from the personal affairs and other business ventures of the operator.

In modern farming a large amount of equipment is involved and a considerable part of current expenditures are for purchases of such equipment, while a considerable part of current expense is depreciation on facilities purchased in previous years. Hence the second important requirement in farm accounting is the proper segregation of current expense from capital outlay and the maintenance of asset accounts with a record of depreciation.

Most farm businesses consist of the production of several different crops and kinds of livestock, each of which may be considered a separate enterprise. Intelligent management requires that profit be computed separately for each enterprise, not only as a guide to a better selection and combination of enterprises, but also as an aid

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to analyzing each enterprise and improving it. Accounting which produces such enterprise statements is called enterprise accounting to distinguish it from simple accounting for the farm business as a whole. Enterprise accounting requires more information and records as well as an intimate relationship with the farm business on the part of the accountant. It is required where several seperate statements are necessary for different enterprises or farm properties and it is justified as an aid to better management wherever the volume of business warrants a full- or part-time bookkeeper.

In farming a complete cycle of business covers in time one year. The best fiscal year is that which fits the natural production cycle of the majority of the crop and livestock enterprises on the farm. The best time to start a fiscal year is when most of the season's crops have usually been sold and production is about to begin on the following season's crops. In the northern hemisphere the calendar year fits most diversified farming businesses fairly well and should be used as a fiscal year unless there is a special reason for choosing another.

In some cases a considerable part of the goods produced during a year may not be sold within that year. Furthermore, some of the enterprises on a diversified farm may not be completed by the close of the fiscal year chosen. In order to close the books and figure profit for the year it is necessary to take an inventory of products, supplies, and livestock on hand at the end of each fiscal year. The farm schedule for income tax returns permits the figuring of farm profit on either a cash or accrual basis but an annual inventory is recommended in all farm accounting where there are any supplies, products, or livestock on hand. Farm products and livestock raised for use or sale should be valued at "farm value," which is market value less cost of marketing. Feed and supplies purchased for subsequent use should be valued at cost delivered to the farm.

The proper planning and administration of a farming business requires the recording of considerable information in addition to fiscal items. Time or labor records of employees, work records of power units, livestock production and breeding records, planting and harvesting dates, and maps and field and crop production records are all valuable supplements to an accounting system. They require not only participation on part of the bookkeeper but are also necessary to him in his work. Items, quantities, weights, unit

prices, etc., should always be recorded along with values in all purchases and sales.

Accounting and record keeping for farmers may be at several different levels. Farmers who wish to keep records for themselves, unless they understand full double-entry bookkeeping, will do better with a simple farm record book. Such books are available in most states through the Agricultural Extension Service or the College of Agriculture. They usually contain facilities and instructions for obtaining annual profit or loss and net worth statements for the farm business as a whole. The results obtained are satisfactory in some cases, although perhaps seldom as accurate or complete as where full double-entry bookkeeping is conducted by a competent person.

Theory of Accounts

A farm accounting system must be designed to fit the particular farm business served. Farms differ so widely that few would be able to utilize any standard accounting system, no matter how comprehensive. Hence, it becomes necessary to assume a farm business in order to illustrate the selection of accounts and the purpose they are to serve. As an example, we have chosen Ranch A composed of 20,000 acres of rangeland and 900 acres of cropland partly under irrigation from a reservoir and dam on the ranch. The owner, F. R. S., maintains a residence on the ranch but also engages in business elsewhere and employs a resident manager and a resident secretary-bookkeeper. He owns Farm B near-by, which he usually rents out but occasionally farms from Ranch A. Separate statements are required for Ranch A and Farm B, and separate enterprise statements are desired for the productive enterprises on Ranch A.

Enterprise Accounts

The major enterprises on Ranch A for 1940 are as follows:

1. Beef Cattle—357 cows plus bulls, calves, heifers, and steers—with steers sold fat at about two years of age.
2. Sheep—1,213 ewes, selling wool and fat lambs.
3. Range—20,000 acres with all of production used by cattle and sheep.
4. Alfalfa—200 acres, hay and some pasturage used largely by above stock but small sales of hay are occasionally made.

5. Barley—500 acres, part of grain and all of stubble pasture used by livestock, some grain is sold.
6. Corn for Silage—63 acres, entire crop is put in silos for beef cattle feed.
7. Irrigated pasture—110 acres used by cattle and sheep.

Each of the above will require an account or group of accounts to which all operating expenses and incomes are ultimately charged or credited before records are closed and profit computed for each enterprise. In addition to disclosing profit or loss, it is necessary that the enterprise account yield information for a complete analysis of the enterprise. Analysis columns are consequently used to facilitate the assembling of the different kinds of expense or income, and of considerable quantitative information. Each enterprise is credited with its product, whether sold off the farm or not, in order that its true contribution to total farm profit may be determined. For example, the range enterprise is charged with expenses accruing to it, such as taxes, fence repairs and depreciation, and is credited for the pasturage provided cattle and sheep at going local rates per head month or rental values per acre. Inter-enterprise charges and credits should be made at "farm values," which is market value less marketing cost, and should be determined at the time of delivery from one enterprise to the other as when hay is put in the barn and corn in the silo. This system alone puts the profit where it was earned and discloses valid managerial information. Charging products at cost of production destroys good management by relieving some enterprises of the necessity of showing a profit and handicapping others.

It is also imperative that all farm expenses including overhead costs be ultimately charged to enterprises in proper proportions. In so far as possible all expenses should be charged to enterprise accounts upon first entry of the transaction and all direct expenses can be so charged. Many general farm expenses, however, are best accumulated in temperory expense accounts from which they may be allocated to enterprises monthly or at the end of the year on an intelligent basis.

Service Departments or Units

The purpose of a service department or power unit on a farm is seldom to make a profit but rather to perform services for the productive enterprises. The cost of these services is determined

by an account or group of accounts so that it may be charged to enterprises on the basis of services rendered. On Ranch A there would be the following service departments or units:

Employees Board and Room—To accumulate costs of housing and feeding employees so they may be charged to employees or to enterprises along with the wages as part of the total labor cost.

Farm Machinery and Power—To accumulate all farm machinery and power costs, such as repairs, fuel, and oil. The department is credited with work charged to enterprises at hourly rates for tractor and implement or truck; and such charges are to be as near cost as possible so that the account will be clear or nearly so by the end of the year. This department may further be broken down into cost accounts for each truck and tractor.

Ranch House and Office—Management and office expense is to be allocated to enterprises at the end of the year on a basis of estimated time spent on each enterprise or in proportion to gross debits.

Reservoir and Irrigation System—To obtain the cost of irrigation water for management purposes and to charge enterprises for the volume delivered.

Owner's Residence and Grounds—Although not a service department or enterprise, this account must be charged with benefits received from farm enterprises, labor, and service departments, in order to accomplish the required separation of personal from legitimate farm expenses.

Labor—It is recommended that all labor costs be charged to a labor account from which they are later transferred to enterprises. The kind of labor record needed to provide a basis for charging labor costs to enterprises and service departments (preferably at monthly intervals) frequently takes the form of monthly time cards for each employee. At the end of the month these cards are completed and totals by enterprise are entered by employee in a payroll record where total wages and cost of board and room are distributed over enterprise and service department columns. Totals for all employees for the month are then charged to Enterprise and Service Department and credited to the Labor and Board and Room.

Overhead Expenses—A general expense account or group of accounts is used to segregate certain types of expenses for alloca-

tion to enterprises and service departments on some fair basis at the end of the year. Analysis columns or subaccounts should be used for each type of expense desired to be kept separately or to be allocated by a different method. The following are some important subaccounts with their suggested basis of allocation to enterprise and service department accounts:

1. Property taxes—assessed or book value of assets used
2. Interest—book asset value or special purpose of loan
3. Fire insurance—insured values used
4. Roads and Driveways—estimated use
5. General Building maintenance and repairs—estimated use of buildings repaired

Assets and Depreciation—A grouping of equipment and improvements in asset accounts on the basis of enterprises and service departments will facilitate the computation and allocation of depreciation. Items of small cost and short life should be charged as current expense to the enterprise or service department for which they are acquired. Each major item of equipment and each building or improvement should be listed separately in an equipment and depreciation record where its current value and the depreciation taken are shown year after year until it is disposed of. Similar items pertaining to a particular enterprise or service department are grouped together in the depreciation record and covered by a single asset account with its associated depreciation reserve account in the general ledger. Depreciation for each asset group is generally allocated to enterprises at the end of the year on the basis of use of the facilities covered.

Accounts Required

The selection of accounts for a farming business will depend upon its size and nature and the extent to which enterprise accounting is followed. Herewith is a sample list of accounts which would be used in enterprise accounting for the farming business of F.R.S. comprising Ranch A and Farm B.

I. Assets (Ranch A unless indicated otherwise)
   Bank
   Cash
   Accounts Receivable
   Marketing Association Revolving Fund Certificates
   Inventory—Feed, Products and Supplies

Inventory—Beef Cattle
Inventory—Sheep
Inventory—Workshop
Farm Implements *
Tractors, Automobiles and Trucks *
F. R. S. Automobile *
Shop Equipment *
Office Equipment *
Bunkhouse and Cooking Equipment *
Alfalfa and Irrigated Pasture Stands *
Land
Ranch house and Office *
Bunkhouse and Employees Cottages *
Other Farm Buildings *
Domestic Water System *
Ranch and Pasture Fences *
Dam, Reservoir and Irrigation System *
F. R. S. Residence *
Farm B—Land
Farm B—Buildings and Improvements

II. Liabilities

Accounts Payable
Notes Payable
Mortgage Payable

III. Proprietorship

F. R. S. Personal
F. R. S. Investment
Ranch A—Profit and Loss
Farm B—Profit and Loss

IV. Temporary Expense Accounts

Labor
General Expense
- Taxes
- Interest
- Insurance
- Roads and Driveways
- Building Maintenance and Repairs

V. Service Department Expense Accounts

Irrigation System
- Labor
- Horsework
- Tractor work
- Truck work
- Materials
- Miscellaneous
- General Expense
- Depreciation

* Together with depreciation reserve accounts.

Ranch House, Office and Management

Manager's salary	Office supplies
Bookkeeper's salary	Miscellaneous
Telephone	Depreciation
Electricity	

Employees' Board and Room

Cook's salary	Food	Miscellaneous
Other labor	Fuel	General Expense
Truck work	Electricity	Depreciation
Garden, dairy and poultry expense		

Workstock

Labor	Grain	Veterinary	General Expense
Hay	Pasturage	Harness	Depreciation

Farm Machinery, Trucks, Tractors, etc.

Labor	Tractor #1	Truck #1	F. R. S. Auto
Gasoline	Tractor #2	Truck #2	General Expense
Oil and Grease	Electricity	Manager's Auto	Depreciation
Supplies			

F. R. S. Residence and Grounds

Labor	Others as desired
Irrigation Water	

VI. Enterprise Expense Accounts

Beef Cattle Purchases

Bulls	Steers
Cows	Calves

Beef Cattle Expense

Labor	Hay	Veterinary and Miscellaneous
Horse work	Concentrates	General Expense
Truck Work	Salt and Minerals	Management and Office Expense
Range	Other Pasturage	Depreciation

Sheep Purchases

Rams	Ewes	Lambs

Sheep Expense

Labor	Hay	Veterinary and Miscellaneous
Horse work	Concentrates	General Expense
Dog expense	Salt and Minerals	Management and Office Expense
Truck work	Range	Depreciation
	Other Pasturage	

Alfalfa Expense

Labor	Seed	Miscellaneous
Horse work	Fertilizer	General Expense
Tractor work	Irrigation Water	Management and Office Expense
Truck work	Fence Repairs	Depreciation

Irrigated Pasture Expense Barley Expense Corn Expense	Same analysis columns or sub-accounts as alfalfa

Range Expense

Labor	Miscellaneous	General Expense
Horse work	Fence Repairs	Management and Office Expense
		Depreciation (fences, etc.)

(New Alfala and Barley accounts for following year would be opened when work began)

Farm B Expense—with such segiegations as needed

VII. Enterprise Income Accounts

Beef Cattle—number, weight, value of each kind to be recorded

Bulls	Calves	Yearling steers	Miscellaneous
Cows	Yearling heifers	2 year steers	Manure

Sheep

Rams	Fat lambs	Wool
Ewes	Feeder lambs	Manure
Wethers		

Alfalfa Income

Hay	Pasturage

Irrigated Pasture—pasturage for beef cattle, sheep, and workstock
Barley—hay, grain, straw, stubble pasture
Corn—green corn for silage
Range—pasturage for beef cattle, sheep, and workstock
Farm B—income segregated to subaccounts as needed

Where enterprise accounting is not practiced there is little value to segregating income and expense into a large number of accounts and only a few accounts will be needed to cover groups of assets. The following list of accounts would be adequate to provide certain management information along with profit and loss statements for Ranch A and Farm B, as separate from the personal affairs of F.R.S.

I. Assets

Bank
Cash
Accounts Receivable
Inventory—Products and Livestock
Marketing Association Revolving Fund
Farm Implements and Equipment
Tractors, Truck and Automobiles
F. R. S. Automobile
Office, Bunkhouse and Cooking Equipment
Alfalfa and Irrigated Pasture Stands
Land—Ranch A
Buildings, Fences, Dam, etc. Ranch A
F. R. S. Residence
Farm B—Land
Farm B—Buildings and Improvements

II. Liabilities

Accounts Payable
Notes Payable
Mortgage Payable

III. Proprietorship

F. R. S. Personal Account
F. R. S. Investment
Ranch A—Profit and Loss
Farm B—Profit and Loss

IV. Income

Income Ranch A

Beef cattle	Alfalfa
Sheep	Barley
Wool	

Income Farm B—Segregations as needed

V. Expense

Ranch A

Labor
Employees board and room
General Expense

Taxes	Interest
Insurance	Office Expense

Farm Machinery and Power
Farm Building and Fence Maintenance
Livestock Expense
Livestock Purchases
Crop Expense

Expense Farm B

Operating Statements

Where enterprise accounting is followed the profit and loss statement for the farm as a whole may be prepared in a manner similar to cases where enterprise accounting is not followed; or, it may merely be a consolidation of the profit and losses shown by the various enterprise statements. The following is a sample enterprise statement for the sheep enterprise on Ranch A, as compiled from the accounts Sheep Purchases, Sheep Expense, and Sheep Income.

Sheep Enterprise Analysis, for 1940, Ranch A
1213 Breeding Ewes, January 1, 1940

Income

			Total	Per Ewe
Rams	1 head		$ 15.00	$ .01
Wethers	11 head	870 lbs.	59.25	.05
Lambs Sold	761	48186 "	4022.37	3.32
Sheep fleeces	1192	7866 "	2489.79	2.05
Lamb fleeces	471	810 "	162.00	.13
Tags		688 "	73.68	.06
Pelts	49		26.20	.02
Increase Inventory in sheep			77.50	.06
Total Income			$6925.79	$5.70

Expense

Rams Purchased, 2	$ 65.00	$ .05
Range 5000 acres @ 25¢	1250.00	1.04
Irrigated Pasture 344 hd. mo. @ 25¢	86.00	.07
Barley stubble 60 acres @ 50¢	30.00	.02
Hay 135 tons @ $9.32	1295.00	1.07
Barley and C.S.C. 54,135 lbs. @ $1.13	612.50	.50
Salt 6000 lbs. @ 64¢ cwt.	38.50	.03
Labor 3517 hrs. @ 35¢	1221.00	1.01
Shearing	211.25	.17
Miscel. supplies, etc.	268.51	.22
Horse and dog work	54.00	.04
Auto and truck work	60.00	.05
Taxes and insurance	486.00	.40
Management and office expense	590.00	.49
Depreciation on buildings	475.00	.39
Total Expense	$6742.76	$5.55
Net Profit	183.03	.15

Summary of Profit and Losses for the Year 1940, Ranch A

		Loss	Profit
Sheep	1,213 ewes	—	$ 183.03
Beef cattle	357 cows	$942.00	—
Alfalfa	200 acres	—	367.50
Barley	500 acres	—	1276.50
Irrigated pasture	110 acres	—	317.50
Corn for silage	65 acres	86.30	—
Range	20,000 acres	—	3764.00
Total Farm Profit		—	$4880.23

STATEMENT OF ASSETS AND LIABILITIES, RANCH A, F. R. S.

ASSETS

	Jan. 1, 1940	Jan. 1, 1941	Increase	Decrease
Bank of —	$ 1,746.50	$ 1,532.70	—	$213.80
Cash	27.35	142.70	$ 115.35	—
Accounts receivable	—	72.40	72.40	—
Marketing Assn. Rev. Fund	250.00	250.00	—	—
Inv., Feed, Prod. and Sup.	2,457.60	4,358.40	1,900.80	—
Inventory beef cattle	44,500.00	47,385.00	2,885.00	—
Inventory sheep	9,057.50	9,135.00	77.50	—
Inventory workstock	1,128.50	928.50	—	200.00
Farm implements	2,756.40	2,438.60	—	317.80
Tractors, autos, and trucks	3,750.00	3,050.00	—	700.00
Shop equipment	175.00	175.00	—	—
Office equipment	225.00	200.00	—	25.00
Bunkhouse and cooking eqt.	375.00	425.00	50.00	—
Alfalfa and Irrg. past. stands	2,100.00	1,800.00	—	300.00
Land	145,000.00	145,000.00	—	—
Ranch house and office	3,750.00	3,625.00	—	125.00
Bunkhouse and employees cot.	7,658.00	7,240.00	—	418.00
Other farm bldgs.	18,769.00	17,940.00	—	829.00
Domestic Water system	1,250.00	1,175.00	—	75.00
Range and pasture fences	6,800.00	6,400.00	—	400.00
Dams, Resev. and Irrig. System	12,500.00	12,250.00	—	250.00
F. R. S. residence	9,600.00	9,300.00	—	300.00
Total Assets	$273,875.85	$274,823.30	$ 947.45	—

LIABILITIES

Accounts Payable	643.20	796.70	153.50	—
Net Worth	$273,232.65	$274,026.60	$ 793.95	—

The profit and loss statement where enterprise accounting is not followed would be a summary of ledger account balances and depreciation at the end of the year. The following is an example for Ranch A

INCOME

Beef cattle sold	$18050.67	
Sheep and wool sales	6848.29,	
Alfalfa sold 40 T	360.00	
Barley sold 160,000 lbs. @ $1.00	1600.00	
Miscellaneous income		
Increase in inventory	4663.30	
Total Income		$31522.25

Expenses

Labor	$ 9421.86	
Board and Room for employees	2648.50	
Taxes	1273.50	
Insurance	784.50	
Office expense	2744.20	
Farm machinery and power	2349.70	
Repairs and Maintenance Building and roads	279.50	
Livestock purchases	328.50	
Livestock expense	1787.46	
Crop expense	934.50	
Depreciation	4089.80	
Total Expense		$26642.02
Net Profit		4880.23

Bookkeeping Methods

For most farm accounting, loose-leaf binders accommodating a considerable variety of 11 x 14 inch forms will be most convenient. One binder will contain the original books of entry, while another book of the same size will contain the ledger accounts. The 11 x 14 inch size is also recommended for the ledger as most accounts will require a considerable number of analysis columns for the further segregation of income and expense by subaccounts. The following records are explained in the light of the Ranch A illustration used above, where enterprise accounting is to be followed.

The Cash Book is a combined multicolumnar record for both cash and check transactions. It is most convenient in that all transactions involving cash received, cash paid, bank deposits made, and checks drawn are in one record, in chronological order, where items may be distributed to various columns for posting in total at the end of each month. The monthly totals of the expense distribution columns not only reduce the work of posting but also are valuable in budgeting and financial management. The annual totals of these distribution columns will provide for the quick computation of profit and loss for the farm business as a whole on a cash receipts and disbursements basis.

The Journal contains noncash transactions and interaccount or interenterprise charges and credit.

The Payroll Record is a multicolumnar form used in distributing wages and cost of board over enterprises and service departments. A line is used for each employee for each month, the information

being obtained from a monthly time card. The monthly totals for all workers are posted directly from this record to the accounts affected.

The Field Power Record is a series of multicolumnar records for horse, tractor, and truck work charged. These charges are based upon monthly work or time sheets for draft horses, saddle horses, and for each truck and tractor showing the hours of service to each enterprise and computing the value of same at appropriate hourly rates. The amount so computed is credited to the Work Stock or Farm Power and is charged to Enterprise and Service Department at the end of each month.

Depreciation Record—This is a multicolumnar record showing all individual buildings and pieces of equipment for which depreciation is charged. They are grouped by asset accounts giving full details.

Map of Farm (Each year a map of the farm should show its utilization by crops.)

Summary of Production records crop yields by fields as they are harvested.

The Inventory contains inventories recorded in detail, from which totals are obtained for making the necessary journal entries to correct the inventory asset accounts.

The General Ledger will contain all accounts. A trial balance should be made monthly, not only to prove the accuracy and completeness of all entries and posting, but also to provide a current report on account balances.

Closing—At the end of the fiscal year a trial balance is taken before temporary expense account balances are transferred to enterprise and service department accounts. Then a multicolumnar work sheet should be prepared and each expense item remaining in any temporary expense account is distributed across the page and a total for all items is posted as general expense to the enterprise and service department accounts from a journal entry. Following this, perhaps on the same sheet, the distribution of depreciation for each asset account is made over the enterprise and service department columns and totals are made the basis of a journal entry to credit the depreciation reserve accounts and charge depreciation to the enterprise and service departments. The next step is to clear the service departments by allocating remaining balances to enterprise accounts. If any service department has a credit balance it

is distributed to enterprises on the basis of the original charges while any debit balance is also charged on the same basis. The ranchhouse and office expense, which includes management, is allocated to each enterprise on the basis of estimated service to each enterprise. The final step is to close enterprise income and expense accounts by journal entries to profit and loss. The remaining open accounts are balance sheet accounts. Statements analyzing each enterprise and service department can then be made up from the detail in the analysis columns of the ledger accounts.

ACCOUNTING FOR FINANCE COMPANIES

By

Seymour S. Berdon *

Brief Description of Business

Business organizations known as "finance companies" may be divided into three principal types: (1) those which make personal loans to individuals, (2) those which finance installment purchases by individuals (especially purchases of automobiles), and (3) those which serve business enterprises by making loans secured by collateral of various kinds, or by purchasing receivables at a discount.

The third group is the most numerous of the three and for purposes of greater clarity and coherence, this article is confined principally to the procedures and problems of such companies. The term "finance company" as used herein applies therefore, unless otherwise indicated, to this group.

As mentioned above, the characteristic transaction of such companies in dealing with commercial enterprises may be either: (1) an outright purchase of accounts or notes receivable, or (2) granting loans and taking as collateral therefor certain property having a value in excess of the amount advanced. In the latter case, accounts and notes receivable usually collateralize the advance, but in many instances advances are made upon the pledging of chattel mortgages, merchandise inventories, warehouse receipts, life insurance policies, and corporate securities.

Accounts receivable may be purchased on a nonnotification basis, i.e., the customer whose account is held by the finance company is not told that the title to his account has been transferred. When this procedure is followed, the remittances in payment of invoices are made directly to the company whose accounts are being factored and such monies are thereupon turned over tó the finance company. When purchased on a notification basis, the invoices

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rendered to the customers of the factored company are stamped with a legend to this effect.

Because of this negotiability, notes, trade acceptances and chattel mortgages are more often sold outright to the finance companies. When this is done, payment is made directly to the finance companies upon presentment, at maturity, to the makers.

In most instances finance companies other than personal loan companies advance a certain percentage of the requested loan and withhold the balance until a certain event occurs, i.e., the account is collected, the note is paid, the inventory sold, etc. When the property sold or transferred to the finance company is paid for, the balance of the advance, less charges, is then given to the client.

At the outset, most factoring companies obtain clients by solicitation, and by recommendation. When the prospect has expressed a desire to utilize the facilities of the factor, he agrees to present to the latter a copy of a certified public accountant's statement, or failing this, permits the factor to send its auditors to make the examination. The extent of the verification will depend upon the type of factoring service to be rendered.

The income earned by finance companies is dependent on the charges made to clients for the use of money. Among personal finance companies the fee is usually a certain percentage of the outstanding loan. In accounts receivable financing, the charge may be based on the amount of money advanced, on the total of the accounts receivable outstanding or a combination of the two. Fees from the financing of written evidences of indebtedness are usually contingent upon the duration of the debt. In instances, a flat charge may be substituted for the methods stated. Other sources of income include charges of a varied nature for such items as postage, stationery, and bonding, and in some cases, fees received for auditing and other services of an advisory nature.

Theory of Accounts

Being a service organization, a finance company desires to determine its net revenues from each *type* of financing undertaken as well as the gain derived from other services. Some companies only deal in one type of financing, as accounts receivable or merchandise inventory. Other companies buy accounts receivable, notes receivable, and various other chattels as well.

Therefore, the management will be primarily interested in securing information on the income and expenses for each class of service rendered. Segregation of income and expense items at the time of their entry on the books of account is therefore essential.

Income

The segregation of income items depends upon the determination of when income is earned. Finance companies may analyze their charges by treating income as earned:

1. At the time of receipt (cash basis)
2. Periodically over the life of the outstanding debt and proportionately to the principal outstanding
3. Periodically over the life of the debt without regard to the amount outstanding
4. Only when the outstanding debt is collected
5. When billed (charges in accounts receivable financing)

No fixed rule of determination can be stated; the method varies with the concern. In general, however, income from the financing of written evidences of indebtedness is deferred over the life of the obligation, while revenue from the factoring of open accounts is taken into income as the charge is made.

Expenses

Expenses are segregated directly on a service basis and indirectly according to the following classification:

1. Cost of client solicitation includes among others items:
   a. Cost of advertising
   b. Commissions paid to brokers
2. Cost of credit investigation department is charged with the duty of checking the financial integrity of the prospective client and of investigating the nature of the property desired to be factored, i.e., the credit ratings of the accounts receivable or makers of notes, the quality of inventories and the physical condition of property collateralizing mortgages. Some of the costs chargeable to this department are:
   a. Compensation and expenses of interviewers, auditors, and creditmen
   b. Credit services and other costs incident to the initial investigation of the prospective account
3. Cost of collecting and recording amounts advanced will vary according to the type of financing involved, and will consist of:
   a. Cost of office organization charged with maintaining records of collection and advances
   b. Compensation of auditors checking clients' records
   c. Stationery supplies, telephone and telegraph, postage

4. Overhead: The overhead of a finance company usually consists of:
   a. Administrative expenses
      (1) Salaries—executive, cashier, purchasing department, telephone operators, service departments
      (2) Depreciation of bookkeeping equipment used
      (3) Insurance of office equipment and supplies
   b. General expenses
      (1) Taxes—state, local and personal property (unemployment insurance taxes are charged directly)
   c. Financial expenses
      (1) Interest and bank charges not directly chargeable

Accounts Required

For the purpose of illustrating the typical accounts used by a finance company the following classification is presented for a company which deals in both accounts and notes financing and at the same time renders other business advisory services:

Current Assets:

1 Cash in Banks
10 Cash On Hand
20 Customers' Checks Held For Deposit
40 Clients' Advances Receivable—Secured By Customers' Accounts
45 Clients' Advances Receivable—Secured By Customers' Notes
50 Clients' Advances Receivable—Secured By Customers' Accounts—Equity
55 Clients' Advances Receivable—Secured By Customers' Notes—Equity
60 Clients' Fees Receivable
70 Charges Receivable—Notes
75 Charges Receivable—Accounts
80 Charges Receivable—Miscellaneous
85 Accrued Interest Receivable

Deferred Assets:

100 Prepaid Expenses
105 Deferred Charges To Expense

Fixed Assets:

110 Furniture And Fixtures
115 Office Equipment

Liabilities:

200 Notes Payable—Secured By Own Collateral
205 Notes Payable—Secured By Clients' Collateral
210 Clients' Notes Receivable Discounted
215 Notes Payable Unsecured
220 Accounts Payable
225 Accrued Expenses
230 Accrued Taxes

Deferred Credits:
250 Deferred Credits To Income—Accounts
255 Deferred Credits To Income—Notes
Reserves:
260 Reserved For Depreciation—Furniture And Fixtures
265 Reserve For Depreciation—Office Equipment
270 Reserve For Loss—Accounts
275 Reserve For Loss—Notes
280 Reserve For Loss—Fees
285 Reserve For Loss—Miscellaneous
Capital:
290 Capital Stock
295 Surplus
Revenue:
300 Income From Charges—Accounts
305 Income From Charges—Notes
310 Income From Charges—Fees
315 Income From Charges—Miscellaneous
320 Interest Income
Cost of Client Solicitation:
350 Advertising
355 Circulars And Catalogs
360 Commissions
365 Postage—Mailing
370 Postage—Circulars And Catalogs
375 Promotion
380 Salaries
385 Traveling And Entertaining
Cost Of Credit Investigation:
400 Bank Charges
405 Collection Expense
410 Credit Insurance
415 Dues And Subscriptions
420 Protest Fees
425 Provision For Losses—Accounts
430 Provision For Losses—Notes
435 Provision For Losses—Fees
440 Provision For Losses—Miscellaneous
445 Salaries
Cost Of Collecting And Recording Amounts Advanced:
450 Bookkeeping Department Salaries
455 Depreciation Of Office Equipment
460 Insurance—Fire
465 Repairs To Equipment
470 Stationery And Supplies
General And Administrative Expenses:
475 Executive Salaries
480 Depreciation Of Furniture And Fixtures
485 General Salaries
490 Insurance—Bonding

495 Legal And Auditing
500 Miscellaneous Expenses
505 Postage
510 Rent And Light
515 Stationery And Supplies
520 Telephone And Telegraph

Taxes:

525 Social Security Taxes
530 Unemployment Insurance Taxes

Financial Expenses:

535 Interest

Financial Statements

From the detailed accounts the following statement of financial condition and statement of income profit and loss may then be prepared.

Statement of Financial Condition

Assets

Current Assets
Cash In Banks
Cash On Hand
*Advances Receivable—Accounts
**Advances Receivable—Notes
Total Advances Receivable
Less Reserve For Losses
Charges and Fees Receivable
Accrued Interest Receivable
Total Current Assets
Deferred Charges And Prepaid Expenses

Fixed Assets
Furniture, Fixtures and Office Equipment
Less Reserve For Depreciation
Net Fixed Assets
Total Assets

Liabilities and Capital

Current Liabilities
Notes Payable—Secured By Own Collateral
Notes Payable—Secured By Clients' Collateral
Notes Payable—Unsecured
Accounts Payable
Accrued Expenses And Taxes
Total Current Liabilities

* Secured by Accounts Receivable Totaling
** Secured by Notes Receivable Totaling

Clients' Notes Receivable Discounted
Reserve For Deferred Profit
Capital
  Capital Stock
  Surplus

STATEMENT OF INCOME PROFIT AND LOSS
For the Year Ended December 31

	Accounts	Notes	Other
INCOME			
Total Income from Charges and Fee			
Less Provision for Losses			
Net Income from Charges and Fees			
Interest Income			
Total Income from All Sources			
EXPENSES			
Direct			
Cost of Client Solicitation:			
Advertising			
Circulars and Catalogs			
Commissions			
Postage—Mailing			
Postage—Circulars and Catalogs			
Promotion			
Salaries			
Traveling and Entertaining			
Social Security Taxes			
Unemployment Insurance Taxes			
Total Cost of Client Solicitation			
Cost of Credit Investigation:			
Bank Charges			
Collection Expense			
Credit Insurance			
Dues and Subscriptions			
Protest Fees			
Salaries			
Social Security Taxes			
Unemployment Insurance Taxes			
Total Cost of Credit Investigation			
Total Direct Expenses			
Direct Operating Profit			
Indirect Expenses			
Cost of Collecting and Recording Amounts Advanced:			
Bookkeeping Department Salaries			
Depreciation of Office Equipment			
Insurance—Fire			
Repairs to Equipment			
Stationery and Supplies			
Social Security Taxes			

	Accounts	Notes	Other
Unemployment Insurance Taxes			
Total Cost of Collecting and Recording Amounts Advanced			
General and Administrative Expenses:			
Executive Salaries			
Depreciation of Furniture and Fixtures			
General Salaries			
Insurance—Bonding			
Legal and Auditing			
Miscellaneous Expenses			
Postage			
Rent and Light			
Stationery and Supplies			
Telephone and Telegraph			
Social Security Taxes			
Unemployment Insurance Taxes			
Total Cost of General and Administrative Expenses			
Total Indirect Expenses			
Operating Profit			
Other Deductions			
Interest Expense			
State and Local Taxes			
Total Other Deductions			
Net Profit for the Period			

The accounts of a finance company are evaluated in the normal manner except that certain of the accounts appearing in the statements presented above require special treatment.

1. The balance sheet contains as an asset only the amounts advanced to clients and not the collateral purchased, the latter being presented as a footnote.

2. Notes receivable discounted is presented as a separate item on the liability side, although the obligation of the finance company is a secondary one. It is not usual to deduct this item from the asset inasmuch as the latter represents the amounts advanced to the client whereas the former represents the discount of the security received.

3. Ascertainment of the reserve for deferred profit will depend upon the company's method of treating income on its books of account.

4. The provision for losses is deducted directly from the gross income charged.

Bookkeeping Methods

Because of the frequency of demands made upon a finance company, it is of the utmost importance that all balances be ascertained daily. This is essential in order that proper treatment may be given to the various clients' requests for additional accommodations.

The entry of transactions into the accounts of a finance company follows generally the principles for service organizations with several distinct modifications. The concept of controlling accounts must be carried out with extraordinary care in setting up the requisite entries. Not only the advances made to clients but also the underlying collateral must be segregated and controlled. Consequently, most entries are compound, affecting the Clients' Advances account as well as the Customers' Collateral account, the latter being a memorandum control account for all of the individual accounts purchased by the finance company.

To facilitate the checking of the required control accounts the individual ledger sheets used for the Clients' Advances accounts are ruled with debit and credit columns on both sides of the page, the debits and credits of the left-hand side indicating the cash advanced to the client, the finance charges, the clients' equity advances and the cash repaid thereagainst. The debits and credits of the right-hand side correspond to the customers' accounts purchased by each advance and the customers' accounts paid by each repayment.

When the finance company purchases the account or note from the client, the latter prepares in triplicate a statement of property purchased which is a detailed listing of all accounts and notes turned over to the finance company and contains the following information in columnar form: (1) date, (2) name and address of each customer whose charge is being purchased, (3) gross amount of each invoice, (4) trade discount allowed on each invoice, and (5) net amount due on each invoice.

Columns 3, 4, and 5 are totaled and a copy of the invoice as well as all shipping memoranda pertaining thereto are annexed to the schedule which is signed by the client.

Assuming that the contract entered into by the client with the finance company called for an advance of 75 per cent, the latter would apply this percentage to the total net amount due on each

invoice, deduct its charges, and give the client a check for the difference.

The statement of property purchased forms the basis of an entry into the finance company's account purchased book which serves as a book of original entry and contains the following columns: (1) date, (2) name of client, (3) number of schedule, (4) total net amount due, (5) finance charges, (6) amount of check, and (7) check number.

Only the total of the finance charges is posted to the general ledger, the entry being as follows:

Debit Charges Receivable—Accounts—#70
Credit Deferred Credits to Income—Accounts—#250

The total amount due is posted as a debit on the right-hand side of the Clients' Advance account and each invoice is posted individually to a subsidiary ledger containing pages in the name of each customer. A similar subsidiary ledger is kept for each client.

Depending upon the method of determining income, a monthly calculation is made and the income earned for the month is transferred from Account 280, Deferred Credits to Income—Accounts, and credited to Account 300, Income from Charges—Accounts. Simultaneously, an entry providing a predetermined reserve for losses is placed on the records in the appropriate accounts.

Where a finance company purchases accounts on a nonnotification basis the client receives all checks in payment of the customers' invoices. The client then prepares a cash remittance report containing the following information: (1) date, (2) name and address of customer, (3) gross amount paid, (4) discount deducted, (5) other deductions (with complete explanation), and (6) net amount paid.

When the finance company receives this statement it adds to the six items of information the following: (7) schedule number of invoice paid and (8) net amount advanced.

This schedule, together with the checks received, is sent to the finance company and forms the basis for entry into the cash book which contains in addition to the usual columns, a memorandum column representing the total of the net amount paid referred to in this schedule. Entries are then made to the individual customers'

accounts and the totals entered in the Clients' Advances Receivable account.

After a schedule has been repaid, the client is entitled to an "equity" payment which is computed by applying the contractual percentage of advance against the total accounts receivable held by the finance company and comparing the result with the debit balance on the left-hand side of the Clients' Advances Receivable account. If the result obtained exceeds this balance, the client is given a check for the difference or "the equity" which represents, in effect, the application of this percentage to the excess of collections over the sums advanced.

Where accounts are purchased outright by the finance company and a specific advance made thereagainst, the practice is to set up a Reserve Adjustment account and to credit therein the difference between the total net amount of customers' accounts purchased and the cash advanced to the client. Debits to this account will then be made as customers' payments are received and will represent the excess of the total net amount of customers' invoices paid over the cash advanced to the client therefor. The contra credit entry represents the equity of the client resulting from the payment.

The bookkeeping methods to be followed by a finance company must be thoroughly understood in order that accuracy of principle and consistency of theory be maintained in the presentation of the financial statistics to the management.

ACCOUNTING FOR FOUNDRIES

By

WILLIAM D. STOWE *

BRIEF DESCRIPTION OF BUSINESS

Foundries exist in great variety as to type of metal goods produced and field of service covered. Thus a foundry may specialize in making castings of one or several metals such as steel, grey iron, and malleable iron, or various nonferrous metals, such as copper, aluminum, and their various alloys. Again a foundry may operate as one of the departments of an industry making standardized lines of goods, or it may be an independent business operating on a standard product or a "jobbing shop" producing an innumerable variety of goods subject to customer specification.

Accounts of a jobbing or contract foundry producing grey iron and brass castings will serve to illustrate the main factors to be considered in this type of business. Customers submit samples or drawings with more or less detailed written specifications showing quantities and quality of articles upon which the foundryman is called upon to submit his bid.

THEORY OF ACCOUNTS AND ACCOUNTS REQUIRED

The foundryman's problem is the securing of orders in a highly competitive field, avoiding price bids which would take business at a loss. Hence the necessity that foundry accounts attain to at least three objectives—the accumulation of reliable cost statistics on which to base estimates for constantly changing products; the production of a factual record that aids in the control of current operations; and finally a disclosure of the extent to which each product has contributed to the total profit or loss during the accounting period.

Operations important to the production end of the business are the purchase and transport of materials, operation planning, pat-

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tern making, molding, melting, cleaning, reclaiming, inspection, and in some cases, heat-treating and other special semifinished or finishing operations. Following is a synopsis of accounts required to summarize the operating costs of a foundry and permit their redistribution to the individual jobs which make up the total of the cost of goods sold in any certain accounting period.

1 GENERAL OVERHEAD
11 Promotion and finance
Security discount and amortization
12 Administration
Management salaries and expenses
Legal, auditing, and other expert costs
Administration office costs
13 Charges to surplus

2 MARKETING COSTS
Salaries
Travel
Office costs
Publicity

3 PRODUCTION DEPARTMENT
31 Burden, general [when and so much of as not charged directly to subclassified departments or centers]
311 Research and control laboratories
.11 Salaries, indirect
.12 Wages, direct
.2 Supplies, material, apparatus
.3 Expense, other
.5 Fixed charges
.7 Costs chargeable to specific asset accounts: awaiting transfer
.8 Costs chargeable to specific customer accounts: awaiting transfer
312 Drafting and design departments
Compare 311 above for subclassification
313 Purchasing department
Compare 311 above for subclassification
314
315
316
......
These sections open for costs of other functional departments.
32 Production auxiliary departments
321 Receiving and stores department
.11 Salaries, indirect
.12 Wages, direct
.2 Supplies, materials, tools

.3 Expense, other
.4
.5 Fixed charges
.6
.7 Costs chargeable to specific asset accounts: awaiting transfer
.8 Costs chargeable to specific customer accounts: awaiting transfer
322 Pattern and carpenter department
Compare above for subclassification
323 Tool department
324 Interdepartmental traffic department
325 Power department
33 Direct productive departments
331 Melting productive departments
This is the general title. In any specific business classify as required, as 331-A Cupola #1; 331-B Cupola #2; 331-C Duplex melter #3; 331-D Crucible furnace battery #4; etc.
.11 Salaries, indirect
.12 Wages, direct
.2 Tools and Supplies
.31 Fuel and power
.32 Expense, other
.4 Material, raw
.5 Fixed charges
.6
.7 Costs chargeable to specific asset accounts: awaiting transfer
.8 Costs chargeable to specific customer accounts: awaiting transfer
332 Molding department
Adapt subclassification to types of molding done; compare 331 above for principles involved
333 Coremaking department
Adapt subclassification to types of core making; compare 331 above for principles involved
334 Foundry cleaning and salvaging department
335, 336, 337 Semifinishing and finishing departments—classify the costs according to the nature of the additional manufacturing operations undertaken.
338 Assembly and inspection department

Classifications 311.7 and 311.8 and similar captions appearing in later groups are used when the organization devotes certain facilities exclusively to self-construction on the one hand, or to the requirements of a special customer, as upon a cost-plus basis on the other. While most foundries will not require these particular captions, they are included above as indicative of the flexibility of cost account arrangements of the foregoing type.

Costs accumulated in the production burden departments, and the production auxiliary departments, i.e., groups 31 and 32, to the extent that they are indirect are prorated at the close of the accounting period to the direct productive departments or cost centers. It follows that the total cost of each of the direct productive departments, 331, 332, 333, etc., is then the direct expenditure in those departments plus the prorated costs from the burden and the auxiliary departments. The total costs in each of the direct production departments or centers is, in turn, prorated to the total goods in process which in the particular accounting period have benefited by the operations of those departments. The basis of prorating, as in any cost system, must be properly determined at each step. Thus the feasible basis of absorption by the Pattern and Carpentry department of its portion of heat, light, taxes, and building depreciation may be its ratio of floor space or its cubical content to the entire plant space or content; while the absorption of power cost may more properly be upon the basis of measured horsepower hours. The total costs of this department, may, in turn, be distributed to the jobs passing through it upon the basis of exact charges on each job for the actual man-hours and actual material devoted to each job, plus a portion of the department burden prorated upon the man-hours.

The prorating of melting department costs to the various jobs calls in other considerations. Determination of the cost of metal ready to pour is a prime factor. Raw materials plus cupola costs determine cost of iron at the spout, or at mold; likewise, raw material plus crucible furnace costs determine cost of metal there melted "ready to pour." In the molding department burden charges must be properly rated to the floor-space occupancy in the different types of molding, with due weight given to such factors as crane service and mechanical sand slingers in heavy molding, while there may be less and different mechanical service in bench molding. Again it is a matter of cost accounting technique as to whether certain burden elements are most accurately apportioned on the basis of floor space, direct labor hours, or pounds of metal.

At the close of an accounting period the various "job" records comprising the total goods in process control have been charged with the total costs of all the productive departments, including both burden and direct costs. Goods in process has been credited

with the values which have passed to Finished Goods Inventory, or Cost of Goods Sold.

Before dismissing the cost phase of foundry accounting, let us note three different procedures that have been optional to accountants and management: (1) all the accounts may have been kept on the "actual cost" basis, and (2) actual costs may have been used for the direct charges, and an estimated "absorbed burden" charge entered against the accounts of all jobs in process. This method gives rise to the use of an Absorbed Burden account. At the end of a fiscal year or end of a business cycle, actual burden accounts may be cleared as debits to the Absorbed Burden account. The amount by which the sum of these debits is larger or smaller than the sum of the regular accounting period credits in the account, gives rise to a final balance in the Absorbed Burden account that is, in turn, cleared to Profit and Loss as either underabsorbed or overabsorbed burden for the fiscal period.

(3) Actual costs may be used throughout up to the point of direct production department accounts, whence, if the business has determined standard costs for its products, the department accounts may be cleared into cost variance accounts at "actual." The variance accounts are then cleared by credit at standard cost figures for the values transferred to Cost of Goods Sold plus a credit or debit entry, as the case may require, to clear the balance, or variance, directly to Profit and Loss account. This last stated procedure, where the nature of the business has permitted a close determination of standard costs, will give by far the closest production control when properly carried out. Reliable cost figures contribute to economic productive operation, and to correct estimates upon prospective contracts; and both are fundamental needs to the successful job foundry.

Other ledger accounts are as follows:

4 VARIANCE ACCOUNTS
  Subclassify by the variances required.
5 COST OF GOODS SOLD
  Subclassify by products as separately costed.
6 SALES
  Subclassify according to nature of products as marketed.
7 GENERAL ASSET ACCOUNTS

71 Inventories
711 Raw materials
712 Supplies
713 Prepaid expense
714 }
715 } Work in process
716 }
717 }
718 Finished goods
72 Accounts receivable
73 Negotiable receivables
74 Securities and investments
75 Fixed assets
76

8 LIABILITIES
81 Accrued payroll
82 Accounts payable
83 Negotiable payables—current
84 Funded debt
85 Reserves for depreciation and obsolescence
86 Reserves for accrued expense not matured
87
88 Capital
89 Surplus

The following set of skeleton accounts does not illustrate a complete ledger, but shows the effect of individual entries that will ordinarily reach the ledgers in summaries from subsidiary journals or vouchers. The accounts contemplate a single cupola with a special manufacturing operation in a "machine" department.

Acct. No. 711.1 PIG IRON STORES

May 1	5,000,000 lbs. @ .02	$100,000.	May 5	10,000 lbs. @ .02	200.

Acct. No. 711.2 SCRAP IRON STORES

May 2	50,000 lbs. @ .01	$ 500.			
May 5	900 lbs. gates, scrap, etc. @ .01	9.			

Acct. No. 712.1 COKE STORES

May 2	Balance on hand	$ 1,000.	May 5	Issued to cupola	20.

Acct. No. 712.8 GENERAL SUPPLY STORES

May 2	Bal. on hand, brick, oil, etc	$ 2,000.	May 3	Brick for cupola	75.
			4	Cutter blades	3.
			4	Grinding wheel	2.

Acct. No. 82 ACCOUNTS PAYABLE

			May 1	Pig	$100,000.
				Scrap	500.
				Other balances	3,000.

Acct. No. 81 PAYROLL PAYABLE

			May 5	Cupola attendants	$ 40.
			5	Indirect labor	85.
			5	Direct labor	100.

Acct. No. 331 CUPOLA MAINTENANCE

May 3	Brick	$ 75.			

Acct. No. 331 CUPOLA OPERATION

May 5	10,000 lbs. pig	$ 200.	May 5	900 lbs. gates	9.
May 5	2,000 lbs. coke	20.	5	Metal ready to pour:	
May 5	Operating labor	40.		Shop order #1— 4000 lbs. net	120.
May 5	Absorbed burden	19.		Shop order #2— 2000 lbs. net	60.
				Shop order #3— 3000 lbs. net	90.

Acct. No. 332.12 MOLDING DEPARTMENT

May 5		$ 100.	May 5	Transfer credits	
				Shop order #1	$ 60.
				Shop order #2	20.
				Shop order #3	20.

Acct. No. 334 CLEANING AND SALVAGING

May 4	Cutter blades	$ 3.			
May 4	Grinding wheel	2.			
May 5	Labor	85.			

Acct. No. 41 CUPOLA ABSORBED BURDEN

			May 5	Per estimate— $1 per thousand lbs. plus fixed rate per day	$ 19.

Acct. No. 42 MOLDING AND CLEANING ABSORBED BURDEN

			May 5	Alloted to shop order #1	$ 40.
				#2	20.
				#3	30.

This represents a control account and subsidiary accounts in which are detailed charges against each job

Acct. No. 714 WORK IN PROCESS IN FOUNDRY

May 5	Shop order #1.		May 6	Transferred to machine department:	
	Iron at mold @ .03	$ 120.		Shop order #1	$ 220.
	Direct labor	60.		Shop order #3	140.
	Burden	40.			
		220.			
May 5	Shop order #2:		May 6	Transferred to finished good inventory; or to Cost of Foundry Sales:	
	Iron at mold @ .03	$ 60.		Shop order #2	$ 100.
	Direct labor	20.			
	Burden	20.			
		100.			

May 5	Shop order #3:		
	Iron at mold @ .03	$	90.
	Direct labor		20.
	Burden		30.
			140.

Acct. No. 715 WORK IN PROCESS IN MACHINE SHOP

May 6	Shop order #1	$	220.	
May 6	Shop order #3		140.	

Acct. No. 51 COST OF GOODS SOLD—FOUNDRY ROUGH

May 6	Shop order #2	$	100.	

Accounts 334 and 42 in the above illustration counterbalance each other, which indicates a perfect precalculation of absorbed burden that is not attained in actual practice. Accounts 331 and 41 which stand in similar relationship show a difference of $56.00, which is an amount of burden cost not absorbed in this period. In the matter of burden absorption over the whole accounting period, we have commented in earlier paragraphs upon the desirability of the application of standard costs in foundry accounting, under which plan variances, both direct and indirect, relating to volume and efficiency are disclosed and disposed of.

Income Statement

The revenue statement of a foundry business takes form as follows:

	Grey Iron Rough	Grey Iron Semi-F	Nonferrous Rough	Nonferrous Semi-F	
Sales	$380,000	$20,000	$150,000	$250,000	
Returns and allowances	2,800	200	400	180	
	377,200	19,800	149,600	249,820	
					$796,420
Cost of goods sold:					
Initial inventory			$ 37,000		
Purchases			225,000		
			262,000		
Final inventory					
Raw material					
In process					
Finished					
			33,000		
			229,000		
Manufacturing wages			300,000		
Supplies		22,000			
Expense		48,000			
Maintenance		17,000			
Equipment royalties		1,500			
Depreciation		50,000			
			138,500		
					667,500
Gross margin					128,920
Selling costs				40,000	
Administration costs				20,000	
Income debits					
Bad debts		2,000			
Federal taxes		20,000			
Interest		3,000			
			25,000		
					85,000
Net income					$ 43,920

Balance Sheet

The principal items covered in a foundry balance sheet are as follows:

Assets

Current

Cash on hand

Cash in banks

Accounts receivable

Less reserve for noncollectible

Negotiable paper receivable
  Less reserve for noncollectible
  Less instruments discounted
Investments
Inventories:
  Raw material
  In process
  Finished goods
  Supplies
Prepaid expense

FIXED
Land
Buildings
  Less reserve for depreciation and obsolescence
Equipment
  Less reserve for depreciation and obsolescence

LIABILITIES

CURRENT
Accounts payable
Negotiable paper payable
Accrued payrolls
Miscellaneous accruals

FUNDED DEBT
Bonds payable
Accrued interest on bonds

RESERVES
For taxes
For dividends
For contingencies

CAPITAL
Common stock
Preferred

SURPLUS

With the exception of raw material inventories, the items of a foundry balance sheet do not offer problems differing from those of other manufacturing industries. Where economic conditions and the nature of the particular foundry business make a heavy investment in raw material stocks desirable to insure future supply, it may be desirable to enter hedging commitments in the market; but this is rather a management problem, and due notice of such commitments may be placed in the business statements. The fluctuation in price of metals, however, makes the use of the "last-in, first-out"

method of costing material into goods in process highly desirable in a foundry business, and it has the endorsement of the writer.

Bookkeeping Methods

The General Ledger usually contains control accounts covering all assets and liabilities, and the chief divisions of revenue and expense. When operations are of considerable magnitude, subsidiary ledgers should by all means be used for operating accounts, equipment records, for inventory, and accounts receivable.

Equipment Accounts are well kept in loose-leaf style. The form should permit systematic recording of depreciation and obsolescence during the life of the equipment, with recoverable value at financial statement dates.

Work in Process ledger is kept in loose-leaf form, adapted to continuously accumulate individual job costs to date. On transfer of jobs in process to finished and shipped goods, the completed individual job records become of high value in estimating.

Accounts Payable in a well organized business may need only a list of vouchers approved and paid periodically, the classified purchase journal, or periodic stores distribution analysis sheet providing the necessary factory accounting information.

Accounts Receivable are kept in loose-leaf subsidiary record.

Pay Rolls are kept in loose-leaf record style to accumulate the individual records of net earnings, bonus, tax deductions, working periods, etc.

Purchase Journal is commonly found in columnar form to classify metals, fuel, and supplies. Both quantity and cost may be shown to provide ready internal check upon other records.

Sales Journal is usually in columnar form, classifying sales by type, as light or heavy castings, rough, semifinished, finished, or other titles suited to the channels of sale.

When the size of operations warrant, it is frequently the practice to produce certain of the above-mentioned supporting records by the use of machine-punched cards and subsequent automatic machine printing. What are in effect journals and periodic analysis and distribution sheets may thus be automatically printed in varied arrangements for comparative purposes and use the same basic data.

Job Time Cards consist of cards in form to accumulate the time

record of each day of each operative as applied to each contract in process. These together with the stores issue analysis statement supply the basic data for posting to the work in process ledger.

Estimate Sheets are an important instrument of the foundry business. As nearly as circumstances permit, an estimate should be a budget or forecast at standard costs of the prospective contract or "job," for which a price quotation is about to be made. It will accumulate preparation costs, such as those of special patterns, flasks, or other special equipment required, together with cost of metal ready to pour, the direct foundry department costs, and the properly weighted burden costs.

ACCOUNTING FOR THE FUR DRESSING AND DYEING INDUSTRY

By

A. H. PUDER *

BRIEF DESCRIPTION OF BUSINESS

The dressing and dyeing of furs involves the complete processing of customers' skins from a raw state to the finished article ready for manufacture into fur garments. Since the business is primarily one of service, inventories are comparatively small, consisting of dyes, chemicals, sawdust, factory and shipping supplies, labor and overhead on work in process, and returnable drums, bags, containers, and so on.

The small size of the inventories tends to minimize the amount of working capital needed, but the acceptance of customers' notes receivable offsets this tendency. Invoices to customers bear current maturity dates, but payment is generally made through notes maturing from one to four months thereafter. Thus, the processor may receive payment in cash up to six months after the completion of work.

Although the business involves the processing of thousands of skins, individual lots (involving a small number of skins each) are the units handled.

Customers are secured both through the efforts of the sales organization and the reputation of the processor. Some manufacturers are famed for their effective reproduction of expensive skins from skins of poor quality.

The work begins with the counting and inspection of customers' skins. Dressing and dyeing of inferior skins does not always produce the desired results, and the normal procedure is to inform the customer of this fact before any work is begun. Certain types of skins require only dressing, others must be both dressed and dyed.

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Occasionally, defects that are not apparent before dressing are subsequently disclosed when "bad" skins are excluded from the dyeing process.

Theory of Accounts

The general classification of the nominal accounts of the fur dresser and dyer is summarized in the following categories: (1) net sales, (2) cost of sales, (3) packing, shipping, and delivery expenses, (4) selling expenses, (5) general and administrative expenses, (6) other income, and (7) deductions from income.

Allocation of sales by type of skin is generally kept in statistical records and is not shown in the books of account. Control of manufacturing costs and expenses is maintained through preparation of comparative, detailed reports showing percentages of net sales for all items.

Usually no attempt is made to keep a complete set of cost records. Cost calculations of the various dressing and dyeing processes are made periodically to check against possible variations of the original costs. These tests and the reports mentioned above afford a satisfactory control over factory costs and expenses.

Large companies having more than one plant control the manufacturing operations of each plant through sets of records separate from those summarizing selling and administrative operations. Each plant is kept on a self-maintenance basis through allocation of the administrative burden, which is generally based on net sales. When purchasing, billing, maintenance of payroll records, and other general activities are centralized under the administrative department, a substantial saving may be effected in controlling operations.

Adequate control over selling and administrative expenses is made possible through account classification in the general ledger and through breakdown of these accounts by analysis.

The processor must maintain complete records of customers' skins on hand. This record generally shows, not only the skins received from the customers and the eventual reshipment, and billing of the completed items, but also indicates the main stages of the processes through which the skins pass. Where more than one plant is involved, records are kept in the individual plant and a similar record, involving all plants, at the administrative office.

However, administrative records do not show the stage of processing.

Control of delivery is maintained by sending a duplicate sales invoice with each delivery. The slip is signed by the receiver of the skins and returned to the accounting office of the processor.

Accounts Required

The various accounts kept by the fur dresser and dyer evolve from the basic necessity of providing details of the nature of the items entering into the main classifications, which have previously been listed. The component accounts constituting these major groups are as follows:

Net Sales

Gross sales less overcharges and dressing and dyeing done outside of the plant constitute the net sales. Dressing may be done in one plant and dyeing in another by companies operating more than one plant. Proper percentages of costs and expenses to net sales are shown through the inclusion of the retail value of the dressing process as part of the plant's sales. The plant performing the dyeing operation deducts the dressing charge from its sales, thereby accurately arriving at the net sales value of the processing completed within that plant.

Cost of Sales

The cost of sales is divided according to direct and indirect expenses. Direct expenses consist of productive labor, chemicals, sawdust, and dyestuffs consumed in operations. Indirect expenses include all overhead items incurred in processing and expenses involved in the operation and maintenance of the plants' buildings and equipment. This category also includes allowances granted to customers for damages resulting from the dressing or dyeing process.

Packing, Shipping, and Delivery Expenses

This section includes all salaries and wages for packing, shipping, and delivery; the cost of packing boxes and materials; and other expenses of the packing and shipping departments, including

truck maintenance and depreciation, freight and express, delivery expenses and truck hire, if any.

Selling Expenses

These expenses consist of the salaries of supervisors, salesmen, and pickup men, expenses of the sales office (rent, office expenses, and salaries of office staff) advertising, samples, etc. The variety of expense items encountered in this classification makes further analysis of general ledger accounts contingent upon the maintenance of separate statistical records.

General and Administrative Expenses

The accounts included under this section are administrative and office salaries, office expenses, legal and auditing costs, dues, and other items of a general nature that cannot be allocated to any of the aforementioned categories.

Other Income

All income other than from sales, such as scrap and miscellaneous sales, discount on purchases, interest received, and bad debts collected are included in this classification.

Deductions from Income

This section includes all taxes, other than property and income taxes, interest payments, bad debts, and items of a nonoperating nature.

All the nominal accounts maintained in the general ledger are considered essential to the preparation of a complete summarization of income and expenses. Therefore, the operating statement presented below will indicate the accounts necessary for a dressing and dyeing organization.

Operating Statement

A complete operating statement of a fur dresser and dyer is presented as follows:

SALES

LESS: Overcharges
Outside Dressing
Total Deductions

NET SALES

COST OF SALES:
- Opening Inventory
- Direct Expenses:
  - Productive Labor
  - Chemicals
  - Sawdust
  - Dyestuffs
  - Total Direct Expenses
- Indirect Expenses:
  - Nonproductive Labor
  - Light, Heat, and Power
  - Rent
  - Salaries of Watchmen
  - Depreciation of Machinery
  - Depreciation of Buildings
  - Taxes on Real Estate
  - Shortages
  - Storage
- Receiving Department Salaries and Expenses:
  - Raw Goods
  - Supplies
- Machinery Maintenance
- Building Maintenance
- Water
- Factory Supplies and Expenses
- Royalties Paid
- Samples and Experiments
- Insurance
- Allowances and Damages
- Total Indirect Expenses
- Total

LESS: Closing Inventory

TOTAL COST OF SALES

GROSS PROFIT

PACKING AND SHIPPING AND DELIVERY EXPENSES:
- Shipping Salaries and Wages
- Packing and Shipping Supplies
- Miscellaneous Packing and Shipping Expenses
- Delivery Salaries
- Gas and Oil
- Miscellaneous Delivery Expenses
- Freight and Express
- Depreciation of Trucks

TOTAL PACKING AND SHIPPING AND DELIVERY EXPENSES

GROSS PROFIT AFTER PACKING AND SHIPPING AND DELIVERY EXPENSES

SELLING AND GENERAL AND ADMINISTRATIVE EXPENSES:

Selling Expenses:

Salaries of Salesmen and Supervisors
Pickup Men's Salaries
Traveling
Advertising
Sales Office Rent
Sales Office Expenses
Depreciation of Sales Office Furniture and Fixtures
Samples
Miscellaneous Selling Expenses
Total Selling Expenses

General and Administrative Expenses:

Administrative Salaries
Office Salaries
Telephone and Telegraph
Stationery and Printing
Postage
Office Expenses
Legal Fees
Auditing
Association Dues
Depreciation of Furniture and Fixtures
Miscellaneous Expenses
Total General and Administrative Expenses

TOTAL SELLING AND GENERAL AND ADMINISTRATIVE EXPENSES

NET OPERATING PROFIT

OTHER INCOME:

Interest on Notes Receivable
Interest on Accounts Receivable
Discount on Purchases
Collections on Accounts Receivable Previously Charged Off
Scrap and Miscellaneous Sales
Royalties Received
Miscellaneous

TOTAL OTHER INCOME

TOTAL

OTHER CHARGES

Taxes Paid
Social Security Taxes
Franchise Taxes
Capital Stock Tax
Miscellaneous
Bad Debts
Interest Paid

Charity
Miscellaneous

TOTAL OTHER CHARGES

NET INCOME BEFORE FEDERAL INCOME TAXES

FEDERAL INCOME TAXES

NET INCOME FOR THE PERIOD

If the above statement were used, for managerial purposes, as an operating statement of one of a series of plants, the sales to other plants would supplement the sales to customers. Deductions from sales would include charges billed by other plants for preliminary processing.

BALANCE SHEET

The balance sheet would reflect the following:

ASSETS

CURRENT ASSETS:
Cash in Banks and on Hand:
Cash in Banks
Cash on Hand
Total Cash in Banks and on Hand
Notes and Accounts Receivable—Customers:
Notes Receivable
Accounts Receivable
Total
Less: Reserves for Bad Debts, Discounts and Allowances
Notes and Accounts Receivable—Customers—Net
Other Notes and Accounts Receivable
Inventory
Work in Process
Dyes, Sawdust, Chemicals, etc.
Returnable Drums, bags, etc.
Total Inventories
Damaged Merchandise Acquired from Customers

TOTAL CURRENT ASSETS

INVESTMENTS

FIXED ASSETS:
Land
Buildings
Machinery and Equipment
Furniture and Fixtures
Automobile and Trucks
Total

Less: Reserves for Depreciation

FIXED ASSETS—NET

OTHER ASSETS

DEFERRED CHARGES AND PREPAID EXPENSES:
Inventories of Factory and Shipping Supplies
Unexpired Insurance
Prepaid Interest
Miscellaneous

TOTAL ASSETS

LIABILITIES AND NET WORTH

CURRENT LIABILITIES:
Notes Payable
Accounts Payable—Trade
Federal Income Taxes Payable
Property Taxes Payable
Accrued Liabilities
Salaries and Wages
Social Security Taxes
Miscellaneous Taxes
Other

TOTAL CURRENT LIABILITIES

LONG TERM LIABILITIES

NET WORTH:
Capital Stock
Surplus

TOTAL NET WORTH

TOTAL LIABILITIES AND NET WORTH

The financial status of the individual companies would necessarily change the nature of some of the accounts reflected on the above balance sheet.

Assets and liabilities are normal items which would generally appear in any balance sheet. Customers' notes receivable are usually substantial in amount. The inventories of work in process consist of the cost of labor, dyes, sawdust, and chemicals consumed, and overhead absorbed in the process of dressing and dyeing. Customers' merchandise which has been damaged and sent back to the processor is valued at the amount expected to be realized on the disposition of such skins.

Bookkeeping Methods

The accounting records of the fur dresser and dyer would consist of the following:

The General Ledger has all asset, liability, capital stock, surplus, income, and expense accounts necessary to the preparation of financial statements. Accounts controlling subsidiary ledgers and records are also included. If desired, capital stock, surplus, and confidential accounts are sometimes maintained in a private or special ledger.

The Monthly Journal records in columnar form all journal entries that are needed each month. These entries provide those adjustments necessary to prepare the monthly report such as accruals, prepayments and depreciation.

The General Journal contains all journal entries not recorded in the monthly journal. Files are maintained with all supporting data for such entries.

Cashbooks provide for original entry of all cash receipts and disbursements. Some concerns follow the practice of not recording direct charges to expense through cash disbursement books; all such items are either journalized or recorded through purchase records.

Purchase Records consist either of a purchase journal for recording all invoices from which entries are made to the individual creditors' accounts, or of a voucher record which shows the totals of various invoices of each creditor and against which the payment is recorded.

Sales and Credit Records consist of duplicates of sales invoices and credits rendered to customers. Such slips serve as a medium for posting to the customers' accounts and the monthly totals are recorded in the general ledger.

Accounts Receivable Ledgers contain individual accounts of all transactions with customers.

Creditors' Records consist either of detailed accounts with each creditor or, if a voucher system is used, of a cross-index file of vouchers paid.

The Notes Receivable Register provides for the recording of all customers' notes receivable. The note register generally provides separate sheets for each month in which the notes mature.

Each note, as it is received, is entered in the register under the month of maturity. The total of all such entries made each month serves as a basis for posting to the general ledger. As notes are paid or recharged to the customers, the proper notation is made in the register and a list of all open items at the end of the month will balance with the notes receivable controlling account in the general ledger.

Record of Customers' Skins contains complete data concerning all customers' skins received, on hand or delivered. A lot number is given to each batch of skins, and is entered in the record in addition to complete information as to the number, type, and quality of skins received. The lot number accompanies the skins throughout the entire processing and is also recorded on the invoice sent to the customer. Duplicate invoices are then employed as a medium for recording deliveries.

Payroll Records contain all data that are required to be kept under the social security and wage and hour laws.

Stock Records provide a perpetual inventory of dyes, chemicals, sawdust, and supplies on hand in the storeroom. All incoming items are recorded from purchase invoices, while outgoing items are recorded from requisitions.

ACCOUNTING FOR FURNITURE MANUFACTURING

By

CLINTON W. BENNETT *

BRIEF DESCRIPTION OF BUSINESS

In many respects the furniture manufacturing industry has been, and to an extent still is, a collection of specialty manufacturers with each class forming subindustries within the broader framework of the industry itself, for example, the manufacturers of chairs, tables, and desks. As a consequence, the furniture industry for years was composed quite largely of relatively small plants; and because of this fact and the "specialist" state of mind, operating efficiency was generally low, costs high, also, since the public will usually pay only so much for any standard article, profits were usually unsatisfactory.

During the past decade, however, there has been a considerable trend away from these "tailor" shops and a resultant development of larger, more efficient factories producing more varied lines of products. The assembly line, so famous in the automotive industry, has made its appearance in the furniture manufacturing industry and is being used in some plants with splendid results. Specialty plants still continue and will continue, but to survive successfully they must have alert, efficient, and progressive management.

While, as indicated, the industry manufactures a varied line of products and the manufacturing conditions differ greatly, the fundamental accounting requirements are quite uniform. The plan described in this chapter is intended to apply only to factories making wood products.

Furniture factories usually buy rough-cut green lumber and perform all drying, yard, and manufacturing operations until the finished product is ready for the customer.

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Theory of Accounts

The accounts of a furniture manufacturing business must provide a continuous control over costs in addition to normal financial accounting functions. A simplified standard cost plan usually best fits the requirements of the furniture manufacturer. This is the plan described.

Under this system, standard costs are set up for each product and costs are not collected by jobs. Lumber and other materials are included in these standard product costs on the basis of standard specifications, no attempt is made to collect the cost of the actual material used on any specific job or order. Direct labor costs are determined by parts, by operations, without regard to the specific products in which the parts may be used. Factory burden is broken down by department or centers of burden application and applied as a percentage of direct labor, while commercial burden is applied as a percentage of the total factory cost. Finally, all costs are tied into and controlled by the financial books of account, and by the simple expedient of a series of continuous controlling accounts and cost variance accounts, control and proof of the cost elements are obtained each month.

Standard specification sheets must be set up for all products. Exhibit B illustrates this form. Lumber costs are calculated on the basis of the size of the dimension stock of a given part as it leaves the cut-off and rip operations, in other words, the gross quantities forwarded to the machine operations. The loss that occurs between the yard or dry kiln and the time the lumber becomes dimension stock must be carefully kept track of and reduced to a percentage of dimension stock footage, in order that it can be added as a flat percentage of waste to all dimension stock in cost figuring.

Exhibit C sets forth a tag which is prepared for each truck of dimension stock leaving the cut-off and rip saws and starting through the plant. This truck tag is prepared in duplicate, the original (paper stock) being forwarded immediately to the cost clerk, while the duplicate (card stock) remains with the truck until the parts have been completed, when it is sent to the cost clerk.

All other materials should be issued on requisitions, or reported on material used orders, so that adequate information will be available for clearing used materials from the inventory accounts each

month. These materials will not be charged against any jobs, but simply transferred from raw material to work in process.

A cost card, Exhibit D, is set up for each product. All material quantities shown are taken from the standard specification sheets; labor is inserted at the standard labor cost, as set up for the specific operations; factory burden is obtained by multiplying the standard labor costs by the budgeted burden rates for the particular operations; and commercial burden cost is determined by multiplying the total factory cost by the budgeted commercial burden rate. When these standard costs have been set up, they should be changed only when the product or processes are changed, or a major cost or price change arises which appears to be of a lasting nature. Ordinary and minor cost and price changes should not be allowed to alter the standard product cost cards, as these changes will be automatically absorbed and controlled by the cost variances accounts. All differences between actual cost and standard cost are filtered out by the cost variances accounts and carried directly to profit and loss. This procedure is illustrated fully on the profit and loss statement, Exhibit E.

Accounts Required

The general ledger accounts required by a typical furniture manufacturing company are shown in Exhibit A. Reference to the chart will show that all accounts are arranged in the following three major divisions and twelve sections:

1. Assets
   - A. Current
   - B. Inventory
   - C. Fixed
   - D. Deferred
2. Liabilities:
   - E. Current payables
   - F. Current accruals
   - G. Reserves
   - H. Capital
3. Revenue and Expense:
   - J. Sales, deductions and costs
   - K. Factory burden
   - L. Commercial burden
   - M. Other income and charges

Each account is symbolized by a combination of the column heading and the line number, for example, A-1 cash in office, B-2

upholstering material, J-1 class 1 sales. The accounts are placed in a loose-leaf ledger in the sequence indicated by the chart, consequently, the chart of accounts also becomes the ledger index.

These are all the accounts that are generally required to completely handle the financial accounting and cost accounting procedures for the usual furniture manufacturing company. Actually, only three additional classes of accounts are usually needed to provide this complete accounting control of operations. These additional classes are: (1) continuous inventory controlling accounts, (2) cost variances accounts, and (3) burden clearing accounts. The entries to these additional accounts required for cost purposes are few in number and are made only once each month.

If the cost department is located at some distance from the general ledger division, the cost accounts can be kept in a separate ledger. This would mean simply the transfer of all accounts shown in columns B (inventory) and K (factory burden) from the general ledger to a factory ledger, and substituting therefor in the general ledger a single account, B-1 factory ledger controlling account, with an offsetting general ledger controlling account in the factory ledger.

None of the income or expense accounts should be closed monthly or at any other time until the close of the fiscal period.

Material Control

The raw material accounts are shown in column B of the chart of accounts and are as follows:

B–1	Lumber
B–2	Upholstering material
B–3	Finishing material
B–4	Hardware
B–5	Other direct material

All purchases of these materials are charged to the appropriate accounts each month at cost. As materials are used, they are credited at actual cost to these material accounts with offsetting debits to the appropriate cost variances accounts, H-10 through H-12.

The standard cost of the material in the products started in process during the month is credited to the appropriate material cost variances accounts, H-10 through H-12, and debited to work in process.

Supplies are frequently charged directly to the appropriate ex-

pense accounts as purchased if the amounts are nominal, otherwise they are charged to B-9, supplies inventory account, and issued on usage requisitions or arbitrarily charged to expense over a specified period of time.

Labor Control

All payroll checks are charged to the payroll accrued account (F-1) as paid. At the end of each month a labor classification and analysis is prepared showing all labor applicable to the operations of the month, whether paid or accrued. From this analysis a factory payroll entry is made crediting the total labor earned to the payroll accrued account (F-1); debiting the total direct labor earned to H-13, Labor Variances account; and debiting the indirect labor earned to the appropriate expense account. The standard direct labor applicable to the operations of the month is credited to the Labor Cost Variances account, H-13, and debited to Work in Process.

Some form of wage incentive appears to be used frequently in the industry, although straight piecework seems to be the most prevalent. One of the best incentive plans, and one that possesses all the advantages of the piecework system and few of its disadvantages, divides the hour into tenths and measures the output of each workman in terms of units of time. To obtain the earning of any workman, it is simply necessary to multiply his measured units of output by his base hourly rate. He gets all he earns and no split of so-called savings is made with management, supervisors, or anyone else. By carefully setting the base rates, proper recognition is given to individual abilities—a highly important feature and one that is entirely absent from the piecework system.

The labor rates used as bases for incentives are used also as the labor cost standards. If no wage incentive rates are in use, the standards for cost purposes can be developed by obtaining daily work reports or from time studies.

Burden Control

All actual expense or burden accruals for each month are charged to the accounts shown in columns K and L of the chart of accounts. At the end of the month the sum of the net balances entered during the month in the factory burden accounts is credited to the Factory Burden Clearing account, K-15, with an offsetting

debit to the Factory Burden Variances account, M-14. The standard amount of factory burden absorbed in the operations of the month is then credited to the Factory Burden Variances account, H-14, and debited to Work in Process.

The sum of the net balances for the month in the commercial burden accounts is credited to the Commercial Burden Clearing account, L-15, with an offsetting debit to H-15, Commercial Burden Variances account. The standard commercial burden for the month is then credited to the Commercial Burden Variances account, H-15, and debited to J-15, Commercial Cost of Sales. No closing entries are to be made to any burden account until the end of the fiscal period.

The plant is frequently divided into the following centers of burden application: (1) mill room, (2) machine and cabinet room, (3) finishing room, (4) upholstering department, and (5) packing room.

The burden can be distributed to these factory burden centers on the following bases:

K– 1	Superintendent and foremen	Superintendent—total factory payroll. Foremen—direct to centers.
K– 2	Department indirect labor	Direct to centers.
K– 3	Power plant	Light—outlets equalized. Power—number of motors × hours run × h.p. × % of load = equalized h.p.
K– 4	Maintenance	Actual or to general factory.
K– 5	Yard and kilns	To general factory or, if practical, on a board foot basis.
K– 6	Sundry materials	To general factory.
K– 7	Freight and transportation in*	To general factory.
K– 8	General supplies and expense	Direct to centers and general factory.
K– 9	Shipping	To general factory.
K–10	Trucking	To general factory.
K–11	Insurance: Liability	Total payroll.
	Buildings	Floor space.
	Machinery	Valuation.
K–12	Social security taxes	Total payroll.
K–13	General taxes	Land and buildings—floor space.
K–14	Depreciation	Machinery—valuation.
General factory distribution		Basis of total payroll.

* Transportation inward on bulk goods, such as lumber, will be added to the purchase cost.

When the expenses are all distributed and the total burden of the indirect departments redistributed to the direct centers, the total burden so allocated to each direct center is divided by the budgeted direct labor of the center to obtain the burden rates for each center.

The direct labor method of factory burden application lends itself readily to the problems of the furniture manufacturing industry, and, if used as a part of a standard cost plan, the stock arguments often advanced against it immediately evaporate. However, the accounting plan outlined lends itself splendidly to the use of any other logical method of burden application.

The commercial burden is to be applied as a percentage of total factory cost. Some plants have analytical commercial burden data in considerable detail, but these companies are greatly in the minority and the methods are still too much in the laboratory stage to warrant consideration here. Suffice it to say, that there is room for considerable research in this important field of commercial burden cost determination.

Work in Process and Cost of Sales

As stated previously, work in process is charged with the standard cost of all material, labor, and burden used during the month. Production is priced at standard factory cost and credited to work in process with an offsetting debit to finished goods.

Shipments are priced at standard factory cost and credited to finished goods with offsetting debits to the appropriate cost of sales accounts. Consequently, the work in process and finished goods accounts are carried at standard cost in contrast to the raw material accounts which are carried at actual cost.

If actual manufacturing cost is less than standard cost, however, the portion of this reduction applicable to work in process and finished inventories still on hand should be deducted from inventories on the balance sheet and, consequently, deducted from the cost variances credits on the profit and loss statement.

In small plants the finished goods accounts are frequently omitted, and the standard cost of sales is credited directly to Work in Process. This method eliminates the work of costing production and leaves all finished goods in the Work in Process account until they are shipped.

Budgets

Progressive furniture manufacturers are turning to budgeting procedures on an increasing scale. From a practical angle, which is most important in this complicated industry, this work is usually restricted to the following three fundamental budgets: (1) Burden budget, (2) Working capital budget, and (3) Sales budget.

This is the order in which the budget work should be attempted.

All expenses shown in columns K and L of the chart are budgeted for each year in advance and these form the basis of the burden rates.

The working capital position should be budgeted three months in advance and all figures should be revised at the end of each month to reflect changing conditions.

To be of any real value, sales budgets must be prepared to show anticipated sales of quantities by products, by territories and, if possible, by specific customers, priced at the expected selling prices and finally resulting in the total budget in quantities and dollars.

Operating Statements

The following two reports are fundamental and should be prepared promptly at the close of each month:

Exhibit E. Profit and Loss Statement
Exhibit F. Burden Statement

The profit and loss statement is prepared from the balances for the month as shown by the accounts in columns J and M of the chart of accounts, plus the balances in the six cost variance accounts shown in column H, after making allowances for any variances credits absorbed in the inventory reserve. The burden statement is prepared from the balances for the month in the accounts shown in columns K and L of the chart.

A balance sheet can readily be prepared each month if desired, although many manufacturers need this statement only quarterly. All of the balance sheet accounts are shown in columns A through H of the Chart of Accounts.

It should be emphasized that the monthly profit and loss statements are made possible by pricing sales at standard cost and controlling the cost variances instead of obtaining cost of sales by taking inventories. This procedure makes possible the analytical

profit and loss statement shown in Exhibit E, which keeps graphically in front of the executive the profit he expected to make, the profit he actually did make, and, most important of all, the reasons for the differences between the two figures.

The profit and loss and burden statements make provision for continuous-to-date comparisons of actual results with the budgeted estimates.

Bookkeeping Methods

In addition to the general ledger, which has been fully described, the accounting plan of any furniture manufacturing company should include the following four basic books of original entry: (1) cash book (receipts and disbursements), (2) vendors' register, (3) sales record, and (4) journal.

Naturally, these books and records will be subdivided into working sections in large organizations, but the basic principle of four sources of original entry, plus a general ledger to which their entries are posted, applies in all cases.

All of the books of original entry are normally orthodox, differing only in specific plants because of the size of the business and the wishes of the management.

The Inventory Records of raw materials and finished goods are usually operated in detail in large plants and omitted in small ones. Detailed work in process accounts or records are usually not needed. The truck tags provide physical control over goods in process, and the cost variance accounts furnish continuous controls over all differences which may arise between actual and standard cost.

The Monthly Journal contains monthly cost entries, which can best be made in a standard journal with 24 amount columns, two for each month. Thus the names of the accounts to which monthly postings are made are written only once for the year, and each month the appropriate figures are entered in the debit and credit columns for that month.

The Accounts Payable Ledgers and the *Voucher Register* have been eliminated in some organizations by mechanically entering all approved purchases on a vendor's voucher (with check attached) and posting simultaneously by means of carbonization to the appropriate inventory or expense account.

CHART OF ACCOUNTS

	ASSETS					LIABILITIES					REVENUE AND EXPENSE				
	A	B	C	D		E	F	G	H		J	K	L	M	
						CURRENT						BURDEN			
	CURRENT	INVENTORY	FIXED	DEFERRED		PAYABLES	ACCRUALS	RESERVES	CAPITAL		SALES, DED. AND COSTS	FACTORY	COMMERCIAL		
1	Cash in Office	Lumber	Land		1	Accounts Payable Trade	Payroll Accrued	Reserve for Depreciation on:-	Capital Stock Common	1	Sales Class 1	Superintendent and Foreman	Executive Salaries	Discounts Received	1
2	Cash in Banks	Upholstering Material	Buildings	Interest Prepaid	2	Accounts Payable Other	Interest Accrued	Buildings	Capital Stock Preferred	2	Sales Class 2	Departmental Indirect Labor	Office Salaries	Interest Received	2
3		Finishing Material	Machinery and Equipment		3			Machinery and Equipment		3	Sales Class 3	Power Plant a-Labor b-Sup.&Exp.	Office Supplies & Expense	Waste Sales	3
4	Accounts Receivable Trade	Hardware			4	Acceptances Payable	Social Sec. Taxes Accrued		Capital Surplus	4		Maintenance a-Labor b-Sup.&Exp.	Telephone, Telegraph & Postage	Sundry Sales	4
5	Accounts Receivable Other	Other Direct Material			5		Income Taxes Accrued		Earned Surplus	5	Returns & Allowances Class 1	Yard and Kilns a-Labor b-Sup.&Exp.	Professional Services		5
6			Autos and Trucks		6	Notes Payable Banks	General Taxes Accrued	Autos and Trucks	Profit and Loss	6	Returns & Allowances Class 2	Sundry Materials	Bad Debts		6
7	Notes Receivable				7	Notes Payable Other				7	Returns & Allowances Class 3	Freight & Transportation In	Credits and Collectors		7
8					8					8		General Supplies & Expense	Freight & Transportation Out	Discounts Allowed	8
9		Supplies	Office Furniture & Fixtures		9	Provision for Bad Debts		Office Furniture & Fixtures		9		Shipping a-Labor b-Sup.&Exp.		Interest Paid	9
10					10				Material Price Variances	10		Trucking a-Labor b-Sup.&Exp.	Sales Salaries & Commissions		10
11	Life Insurance Cash Surrender Value	Work in Process		Insurance Unexpired	11	Social Sec. Taxes Withheld	Compensation Insurance Accrued		Material Quantity Variances	11	Cost of Sales Class 1	Insurance a-Liability b-Other	Traveling Expense		11
12					12				Waste Variances	12	Cost of Sales Class 2	Social Security Taxes	Sales Room & Exhibition Expense	Fed. Income & Profits Taxes	12
13		Finished Goods at Plant			13	Dividends Payable	Sundry Expenses Accrued		Labor Variances	13	Cost of Sales Class 3	General Taxes	Advertising		13
14		Finished Goods Elsewhere			14				Factory Burden Variances	14		Depreciation	Sales Supplies & Expense		14
15					15				Commercial Burden Variances	15	Commercial Cost of Sales	Factory Burden Clearing Account	Commercial Burden & Clear'g Acct.		15

Exhibit A.

The Sales Book is usually a collection of carbon copies of customers' invoices for the month. Some organizations prepare bills of lading as carbon copies of the invoices, and where this system can be used satisfactorily, it reduces billing and shipping detail considerably.

EXHIBIT B

SPECIFICATION SHEET Style No.

Description

Name of Part	Quantity Required	Kind of Material	Rough Dimensions	Board Ft. per Unit	Board Ft. in Total Units Required

TRUCK TAG № 2997

Date | Shop No.

Style No.

Quantity | Description

Part Name

No. of Pieces Required

Dimensions

Kind of Wood

First Factory Operation

Remarks

604

TRUCK TAG № 2997

Date | Shop No.

Style No.

Quantity | Description

Part Name

No. of Pieces Required

Dimensions

Kind of Wood

First Factory Operation

Remarks

604

Exhibit C.

606

COST CARD

Style No.__________

Description

Cost Per

Order No.						
Date						
Material	**Quan.**	**Price**	**Amount**	**Quan.**	**Price**	**Amount**
Lumber						
Finishing Material						
Upholstering Material						
Hardware						
Total Material						
Labor and Burden	**Labor**	**%**	**Burden**	**Labor**	**%**	**Burden**
Mill Room						
Machine and Cabinet						
Finishing						
Upholstering						
Plating						
Packing						
Total Labor and Burden						
Summary Material						
Labor						
Burden						
Total Factory Costs						
Commercial Expense						
Rate						
Amount						
Total Cost						
Add in Deductions						
Total Cost and Sales Deductions						
Selling Price						
Profit						

Exhibit D.

Exhibit E

The X Furniture Company

MONTHLY PROFIT AND LOSS STATEMENT
FISCAL YEAR______

Account Symbol	Name	*Actual* April	*Actual* 4 months to Date	Budget to Date
	Sales:			
J–1	Class 1 sales	$.........	$.........	$.........
2	Class 2 sales	....	....	....
3	Class 3 sales	....	....	....
	Total sales	....	....	....
	Returns and Allowances:			
J–5	Class 1	....	....	....
6	Class 2	....	....	....
7	Class 3	....	....	....
	Total returns and allowances	....	....	....
	Net sales	....	....	....
	Cost of Sales:			
J–11	Class 1	....	....	....
12	Class 2	....	....	....
13	Class 3	....	....	....
15	Commercial	....	....	....
	Total standard cost of sales	....	....	....
	Anticipated operating profit	....	....	....
	Cost Variances:			
H–10	Price—material	....	....	....
11	Quantity—material	....	....	....
12	Quantity—waste	....	....	....
13	General—labor	....	....	....
14	General—factory burden	....	....	....
15	General—commercial burden	....	....	....
	Total cost variances	....	....	....
	Actual operating profit	....	....	....
	Other Income:			
M–1	Discounts received	....	....	....
2	Interest received	....	....	....
3	Waste sales	....	....	....
4	Sundry sales	....	....	....
	Total other income	....	....	....
	Operating profit and other income	....	....	....
	Other Charges:			
M–8	Discounts allowed	....	....	....
9	Interest paid	....	....	....
12	Federal income and profits taxes	....	....	....
	Total other charges	....	....	....
	Net profit	$.........	$.........	$.........
	Interest and discounts allowed to factory cost of sales %	....	....	....

EXHIBIT F

THE X. FURNITURE COMPANY

MONTHLY BURDEN STATEMENT
FISCAL YEAR________

Account Symbol	Name	Actual April	Actual 4 months to Date	Budget to Date
	Factory:			
K–1	Superintendent and foremen..........	$.........	$.........	$.........
2	Departmental indirect labor..........	....	....	....
3	Power plant—labor	....	....	....
	Power plant—supplies and expense	....	....	....
4	Maintenance—labor	....	....	....
	Maintenance—supplies and expense	....	....	....
5	Yard and kilns—labor	....	....	....
	Yard and kilns—supplies and expense	....	....	....
6	Sundry materials	....	....	....
7	Freight and transportation in........	....	....	....
8	General supplies and expense..........	....	....	....
9	Shipping—labor	....	....	....
	Shipping—supplies and expense......	....	....	....
10	Trucking—labor	....	....	....
	Trucking—supplies and expense....	....	....	....
11	Insurance—liability	....	....	....
	Insurance—other	....	....	....
12	Social security taxes	....	....	....
13	General taxes	....	....	....
14	Depreciation	....	....	....
	Total factory burden	....	....	....
H–13	Total direct labor........................	....	....	....
	Factory burden rate %	....	....	....
	Commercial:			
L–1	Executive salaries	....	....	....
2	Office salaries	....	....	....
3	Office supplies and expense	....	....	....
4	Telephone, telegraph and postage..	....	....	....
5	Professional services	....	....	....
6	Bad debts	....	....	....
7	Credits and collections	....	....	....
8	Freight and transportation out........	....	....	....
10	Sales salaries and commissions........	....	....	....
11	Traveling expense	....	....	....
12	Salesroom and exhibition expense..	....	....	....
13	Advertising	....	....	....
14	Sales supplies and expense	....	....	....
	Total commercial burden	....	....	....
J–11–13	Factory cost of sales	....	....	....
	Commercial burden rate %	....	....	....

ACCOUNTING FOR GARAGES

By
J. Gordon Hill *

Brief Description of Business

Current editions of Webster's dictionary define the word "garage" as "a building for housing automobiles; also, a repair shop for such vehicles." This may be a good startingpoint for the discussion of a business that is of such recent origin that it required the addition to our language of an entirely new word. When it was first introduced, the chief difficulty of the average individual was to learn how to pronounce it. Anyone who had the courage to embark upon it as a business enterprise met with the further difficulty of learning how to run one. Like all pioneers, he had to learn by experience, and some of the lessons cost him dearly.

With a background of such experience, successful garage operators learned the importance of selecting a location where opportunities for service abound. Usually this is in a congested downtown area where parking space is greatly restricted. But even a downtown location in itself is no assurance of success. An illustration of this is found in the actual experience of an operator of two garages, each in a downtown area. One was unusually successful, because it was adjacent to a large first-class hotel, but the other was just enough "off center" to involve losses sufficient to absorb the profits of the first.

The selection of a location should also have regard for the character of the service to be provided. This service varies from day or hourly parking to regular monthly service. In a residential district the latter is sometimes coupled with a service known as "live storage" consisting of pickup and delivery, with certain minimum care of the car overnight. Such service appeals to some car owners, in place of a garage in the home.

Under present conditions the function of the garage is not lim-

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ited to "housing automobiles"; it is quite natural that several auxiliary activities have developed in connection with service to automobiles. The most common of these is provision for supplying gasoline and lubricating oils. Others embrace a variety of services, extending in some cases to the sale of new cars. Indeed such auxiliary services sometimes constitute the major activity of the enterprise, and the garage itself becomes of secondary importance.

As a rule the operator of a garage is not the owner of the property used. Inasmuch as substantial commitments are made, both by the owner and the tenant, it is to their mutual advantage to enter upon a long-term lease, often with an option to extend the term at an agreed rental. Before entering upon such a serious undertaking, it is advisable to consider all the hazards and uncertainties involved. Among the more serious of these are the imminence of competition and the possibility of a shift in population or a change in local environment which would affect patronage. The ease with which a parking lot can spring up overnight is a constant menace to the garage operator. As a safeguard against such contingencies, it is well to consider a provision in the lease for an adjustment of the rental to the basis of gross income.

Theory of Accounts

If the accounts of the business were limited to the function "housing automobiles," the accounting system would be very simple. It would consist merely of provision for recording income and expense, which would determine profit or loss for a given period. If business were done wholly on a cash basis (as in the case of a garage providing only day or overnight parking) there would not even be any necessity for keeping accounts with customers.

Since, however, the average garage is engaged in one or more of the so-called auxiliary activities, and extends credit accommodations to its customers, it is necessary to consider a more comprehensive system of accounting. As a minimum, such system would provide the accounting data that are essential to the average commercial enterprise.

With respect to the business of a garage in particular, the accounts and procedures should be so organized as to attain two very important objectives: (1) the assurance that all charges are made and cash ultimately collected for services rendered or mer-

chandise sold; and (2) the segregation of income and expenses into activities concerned with "housing automobiles" and each of such other auxiliary departments as are operated, so as to determine the profit or loss for each of them.

Methods of accomplishing the first of these objectives vary, of course, with the activities concerned. The following discussion is intended to embrace in some detail all of the auxiliary activities which may be connected with a garage, although it is recognized that the extent of detailed accounting may be limited in specific cases by the relative unimportance of some activities.

The service of the garage proper is divided into two general groups, which may be termed periodical or permanent, and casual or transient. For customers who engage garage service on a periodical basis (usually by the month) a register is to be maintained (somewhat akin to a hotel register of guests) for entry of pertinent data as to the customer, his car, rate of charge, etc. This register may take the form of a bound book, a loose-leaf record with prenumbered sheets or individual cards prenumbered. For the transient garage customer some form of prenumbered parking tag is almost universally used. Of course, its form should meet the needs and harmonize with other arrangements applying to the individual business. The essentials are that it be prenumbered, so that all serial numbers can be accounted for, and that garage employees be instructed that a parking tag is to be used upon the entry of any and all cars for transient storage. As a matter of convenience, the form of parking tag may also provide for notation of charges for gasoline, oil, and other supplies furnished or service rendered which, with the storage charge, constitutes the total bill for the parked car.

Another principal activity of a garage is likely to be the operation of a department akin to that of a service station. It is not intended here to describe fully the accounting for such a business. Suffice it to say that, as a department of a garage, it should be surrounded by safeguards, such as pumps, meters, cash registers, and other equipment, to insure that all merchandise disposed of is fully accounted for within reasonable limits, after due allowance for loss through evaporation or other normal shrinkage.

Other departments may include service, such as washing and polishing, tires, batteries, and repairs. In the case of washing and

polishing, a daily list of cars serviced should be maintained in the department, indicating necessary details, such as name of customer, car number, kind of service, and charge. Where other service is involved prenumbered forms should be provided, similar to a customer's order, specifying the work to be done, with space for entry of parts or materials supplied, hours of labor performed or other charges at listed prices.

For transactions in any department which consist merely of a sale of merchandise in the form purchased, the usual methods of merchandise accounting may be employed (either upon the basis of cost or selling value). Such methods should include the use of cash registers and/or prenumbered sales tickets which may be made the subject of a daily audit. However, the results indicated by the accounts should be confirmed by physical inventories from time to time.

In general each of the transactions in an auxiliary department may consist of a sale of merchandise or the rendering of a service. Where both features are involved, it is difficult to determine how much profit results from each, and as a rule no effort need be made to do so. However, if an auto repair department is operated in considerable volume, it is desirable to maintain a separate department for parts and accessories, which is to be credited with all sales therefrom, including such as are used for repair jobs. Then the accounts for the auto repair department would embrace only income and costs resulting from service.

Department results can be studied more intelligently by comparison of gross profits (both in amount and percentages of sales or gross income) or one period with another, so as to develop any indication of possible irregularity in accounting for income, merchandise or other costs, or inaccuracies in inventories. Gross profit, in this connection is the profit of the department before deduction of overhead expenses.

For the determination of department profits or losses, provision is made in the general accounts for segregation by departments of all items of sales, gross income, and expenses. The segregation of sales or gross income and direct department costs and expenses involves no great difficulty; it can be accomplished through the medium of the records of original entry with provision for department analysis of entries therein. For the group of expenses which

apply to all departments and which may be designated as overhead expenses, provision is made for allocation to the service departments upon bases which are appropriate for each class, the usual grouping being as follows:

1. Building Expense is allocated by using the floor space occupied as the basis.
2. Fixed Charges are based on book value of fixed assets, including depreciation computed upon the basis of a property ledger or analysis of fixed assets.
3. Payroll Expense is computed upon compensation paid at applicable rates.
4. General Expense includes all other overhead expenses which cannot be applied on a more direct basis, and which are therefore charged to operating departments upon the basis of sales or gross income.

Accounts Required

The general accounts representing assets, liabilities, and capital of the business do not call for any particular comment, as they are common to the average commercial enterprise. They may be numbered from 1 to 100 inclusive. The form of balance sheet presented hereinafter exhibits their order and general character.

In order to accomplish the objectives mentioned above, it is necessary to maintain in sufficient detail various accounts for income, costs, and expenses, as well as for nonoperating income and deductions. The types of operating accounts for the various departments and their general composition are as follows:

1. Sales of Gross Income consist of charges to customers (less discount other than for cash) for services, such as storage, and repairs, and for sales of merchandise or supplies, such as gas and oil, batteries, and tires.
2. Costs and Direct Expenses consist of employees' wages, merchandise purchased for resale, supplies used, power, water and fuel consumed, etc.
3. Overhead Expenses consist of all other expenses (not directly applicable to departments) incident to the operation of the business.

The following is a list in detail of the accounts to be kept so as to develop the data necessary for the preparation of financial statements exhibiting all transactions for a stated period:

	Garage (Storage)	Washing and Polishing	Gas and Oil	Batteries	Other Departments *
Sales, or Gross Income					
Storage—regular	101–1				
Storage—transient	101–2				
Service Charges	101–3	102–3		104–3	105–3
Sales			103–4	104–4	105–4
Costs and Direct Expenses					
Salaries and Wages	110–1	111–1	112–1	113–1	114–1
Merchandise Cost			112–2	113–2	114–2
Supplies and Expense	110–3	111–3	112–3	113–3	114–3
Water		111–4			
Elevators	110–5				
Maintenance and Repairs	110–6	111–6	112–6	113–6	114–6
Work in Progress					114–7
Increase (Cr.)					
Decrease (Dr.)					
Overhead Expenses					
Distribution (Dr.)	110–8	111–8	112–8	113–8	114–8

* Such as lubricating, tires, repairs, etc.

Overhead Expenses

121 Advertising
122 Association Dues and Assessments
123 Auto Expense
124 Bad Debts and Allowances
125 Collection Expense
126 Depreciation
  (a) Building *
  (b) Operating Equipment
  (c) Office and General
127 Donations
128 Insurance
  (a) Building *
  (b) Operating Equipment
  (c) Employer's Liability—Operating
  (d) Office and General
129 Legal and Accounting
130 Light and Heat
131 Maintenance and Repairs
  (a) Building *
  (b) Office and General
132 Miscellaneous
133 Office Expense
134 Postage
135 Rent
136 Salaries—Office and General
137 Stationery and Supplies

* If all property is rented, these accounts may not be required.

138 Taxes
- (a) Land and Building *
- (b) Operating Equipment
- (c) General
- (d) Social Security

139 Telephone and Telegraph
140 Travel and Entertainment
150 Distribution (Cr.)

Nonoperating Accounts

161 Purchase Discounts
162 Interest Income
163 Miscellaneous Income
171 Sales Discounts
172 Interest Expense
173 Miscellaneous Charges
181 Employees' Bonuses—Profit Sharing
182 Income Taxes

Operating Statements

Operating results are exhibited by a statement of profit and loss, with analyses of details, to be prepared from the general accounts mentioned above, in the form outlined on the following pages:

It is admitted that some painstaking effort is required to maintain the accounts so as to prepare operating statements in the form presented. But the effort is fully justified, because the operating data developed afford the garage operator an opportunity to study the important trends of the business.

Some departments may show persistent losses, even though the business as a whole earns a profit. Such a condition indicates at least the necessity for a study of causes with the idea of applying possible remedies. In the case of a department, such as gas and oil, it may be due to the inadequacy of the profit margin between merchandise costs and selling prices. If there appears to be no immediate remedy for such a situation, the loss may be accepted as an additional cost of service to patrons. Unsatisfactory results in other departments may indicate insufficient volume of business, excess capacity, or a deficiency in rates that could be revised upward without serious loss of patronage.

* If all property is rented, this account may not be required.

STATEMENT OF PROFIT AND LOSS
Period Ended__________

DEPARTMENTAL OPERATIONS	Sales or Gross Income	Costs and Expenses	Operating Profit
Garage—Storage	x	x	x
Washing and Polishing	x	x	x
Gas and Oil	x	x	x
Batteries	x	x	x
Other Departments	x	x	x
Total	x	x	x
OTHER INCOME			
Purchase Discounts		x	
Interest Income		x	
Miscellaneous Income		x	
Total			x
TOTAL BEFORE DEDUCTIONS			x
DEDUCTIONS			
Sales Discounts		x	
Interest Expense		x	
Miscellaneous Charges		x	
Total			x
TOTAL BEFORE BONUSES AND INCOME TAXES			x
DEDUCT			
Employees' Bonuses—Profit Sharing		x	
Income Taxes		x	
Total			x
NET PROFIT			x

Analysis of Department Operations

	Sales or Gross Income	Costs and Expenses	Operating Profit
Garage—Storage			
Storage—regular	x		
Storage—transient	x		
Service Charges (towing, etc.)	x		
Salaries and Wages		x	
Supplies and Expense		x	
Elevators		x	
Overhead Expenses		x	
Total	x	x	x
Washing and Polishing			
Sales	x		
Salaries and Wages		x	
Supplies and Expense		x	
Water		x	
Overhead Expenses		x	
Total	x	x	x
Gas and Oil			
Sales	x		
Salaries and Wages		x	
Merchandise Cost		x	
Supplies and Expense		x	
Overhead Expenses		x	
Total	x	x	x
Batteries			
Sales	x		
Service Charges	x		
Salaries and Wages		x	
Merchandise Cost		x	
Supplies and Expense		x	
Overhead Expenses		x	
Total	x	x	x
Other Departments			
Sales	x		
Service Charges	x		
Salaries and Wages		x	
Merchandise Cost		x	
Supplies and Expense		x	
Overhead Expenses		x	
Total	x	x	x

Analysis of Overhead Expenses

Building Expense		
Depreciation—Building	x	
Building Insurance	x	
Building Maintenance and Repairs	x	
Light and Heat	x	
Rent	x	
Taxes—Land and Building	x	
Total		x
Fixed Charges		
Depreciation—Operating Equipment	x	
Insurance—Operating Equipment	x	
Taxes—Operating Equipment	x	
Total		x
Payroll Expense		
Insurance—Employer's Liability—Operating	x	
Taxes—Social Security	x	
Total		x
General Expense		
Advertising	x	
Associations Dues and Assessments	x	
Auto Expense	x	
Bad Debts and Allowances	x	
Collection Expense	x	
Depreciation—Office and General	x	
Donations	x	
Insurance—Office and General	x	
Legal and Accounting	x	
Maintenance and Repairs—Office and General	x	
Miscellaneous	x	
Office Expense	x	
Postage	x	
Salaries—Office and General	x	
Stationery and Supplies	x	
Taxes—General	x	
Telephone and Telegraph	x	
Travel and Entertainment	x	
Total		x
Total		x

Distribution of Overhead Expenses

Department	Building Expense	Fixed Charges	Payroll Expense	General Expense	Totals
Garage—Storage	x	x	x	x	x
Washing and Polishing	x	x	x	x	x
Gas and Oil	x	x	x	x	x
Batteries	x	x	x	x	x
Other Departments	x	x	x	x	x
	x			x	
Office and General:					
Add	x				
Deduct				x	
Totals	x	x	x	x	x

Balance Sheet

From the general accounts a balance sheet may be prepared, in the following form:

Balance Sheet, As at ________

Assets

Current Assets			
Cash		x	
Notes Receivable		x	
Accounts Receivable			
Amount Due	x		
Less—Reserve for Bad Debts	x		
Net		x	
Inventories		x	
Total			x
Fixed Assets			
Land and Buildings	x		
Operating Equipment	x		
Office and General Equipment	x		
Total Cost		x	
Less—Depreciation Reserves		x	
Net			x
Other Assets			
Prepaid Expenses		x	
Good Will		x	
Total			x
Total Assets			x

LIABILITIES AND CAPITAL

CURRENT LIABILITIES		
Notes Payable	x	
Accounts Payable	x	
Taxes Due and Accrued	x	
Total		x
OTHER LIABILITIES		
Deferred Debt *	x	
Reserves (accrued taxes and expenses not due)	x	
Unearned Income—Prepaid Storage	x	
Total		x
CAPITAL AND SURPLUS (a corporation)		
Capital Stock	x	
Surplus	x	
Total		x
CAPITAL (an individual or partnership)		x
Total Liabilities and Capital		x

The only item in the foregoing balance sheet which may be considered at all peculiar to the business is the liability shown for Unearned Income—Prepaid Storage, which consists of charges to customers for storage extending beyond the end of a calendar month for which operating statements are prepared.

As is the case with the average business, certain major items of the balance sheet are supported by subsidiary records covering details, such as accounts with customers (Accounts Receivable) and liabilities to trade creditors (Accounts Payable). For fixed assets, detailed records either in the form of a property ledger or analyzing schedules should be maintained, being essential for the computation and proper distribution of depreciation charges.

Details as to inventories correspond generally with the operating departments. Gas and Oil inventories are taken at the end of each month. For other merchandise the so-called "book inventories" based on sales are used, with the proviso that they be confirmed by physical inventories, or adjusted thereto, at the end of the accounting year, if not more frequently. Inventories of Work in Progress consist of a list (at cost) of uncompleted and unbilled orders in the departments concerned.

* Payable after end of ensuing year—such as a loan secured by mortgage on real estate, or installments due for a purchase of equipment.

Bookkeeping Methods

A large part of the business of the average garage consists of transient patronage, and much of the latter is upon a cash basis. Usually the only charges of a regular character are those made for storage of cars for patrons who are more or less permanent. Such charges may be entered in a register containing a column for each month (or other period) for which charges are made, totals being posted to the appropriate general ledger accounts and details to the customers' accounts, in addition to any other charges thereto.

For the larger class of irregular charges to customers, it is desirable to provide for a daily summary of business done, with analysis (1) as to whether it is upon the basis of cash or charge, and (2) as to which operating departments are concerned. Such statistics, both daily and for an accumulated period of the current month, together with a comparison with similar past periods, afford a satisfactory indication of the trend of the business from day to day. The routine methods of accomplishing these results will vary, of course, with the volume and conditions of the individual business. A small business may be well served by the use of an adding machine to determine the daily total of business done, together with entry by hand in a columnar form of record. Or, the business may be so large as to justify the use of a bookkeeping machine which, while posting to customers' accounts, would accumulate totals for the several participating departments.

In addition to the foregoing records, there are the usual books of original entry covering the more common transactions such as cash, payrolls, records of purchases, and the ever-present journal.

All of such records constitute the medium for posting entries to the general ledger accounts, as previously enumerated, from which the financial statements are prepared.

ACCOUNTING FOR GASOLINE SERVICE STATIONS †

By

IRVING ELBAUM *

BRIEF DESCRIPTION OF BUSINESS

With the advent of the automobile there sprang into existence four different types of business to aid the motorist in keeping his car in good condition. These related enterprises are: (1) gasoline station, which sells gas, lubricants, and accessories, (2) garage, which stores and, in most cases, washes and greases the car, (3) repair shop, which keeps the car in good mechanical condition, and (4) service station (a combination of the preceding types).

The service station is unique in that it combines all the "automobile aids" under one roof; consequently, its accounting system is a composite of the three related types.

The revenues of a typical service station are broken down as follows:

1. Sales of merchandise
   a. Regular gasoline
   b. Ethyl (or special) gasoline
   c. Oil—Grade 1
   d. Oil—Grade 2
   e. Alcohol
   f. Accessories
   g. Tires and tubes
2. Sales of services
   a. Washing
   b. Greasing
   c. Repairing of flats
   d. All other repairs
   e. Parking and storage

The gasoline, oil, some accessories, and alcohols are purchased directly from one of the few national petroleum distributors—Socony, Texaco, Gulf, etc. In a few instances gasoline and oil are bought through jobbers. The greater part of the service station's accessories, alcohols, tires, and tubes are bought from wholesalers of these products.

† This article was prepared prior to World War II and before rationing restrictions and shortages entered the picture. The description is meant to apply to gasoline service stations operating under normal conditions.

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Purchase terms vary from net cash to 30 days. Approximately 90 per cent of sales are made for cash, the charge sales being made on terms varying from 7 to 30 days.

The service station is operated as an independent unit, or as one of a large number of stations owned by chain operators. Of necessity, the system of internal control is more stringent under the latter form of ownership: detailed accounts are kept for each station, bonded collectors pick up cash receipts daily, the manager of each station is a bonded employee, and credit policies are not as lax as those of the independent operator. Many chains, and the well capitalized independents, own the gas pumps and storage tanks on the premises. A few service station operators own the land and/or building, but the vast majority of operators lease the property.

Stations are operated on a 12-hour or 24-hour basis. When the latter plan is in effect there are generally two (sometimes three) shifts.

Inasmuch as there are many more independent units than chain units, the writer has placed primary stress, in the discussion which follows, upon the accounting requirements of the station owned by an individual. At the conclusion of that discussion there will be found material on the accounting system for chains.

Theory of Accounts

The independent service station dealer generally capitalizes his business at about $3,000.00, or even less. The merchandise investment ordinarily does not require more than $1,000.00. The balance is used for the down payment on machinery (to be used for washing, greasing, and repairing) and for the working capital needs of the business. This small capitalization, coupled with the wide variety of products and services sold by him, necessitates adequate control over all phases of operations at all times. Consequently, the dealer with foresight seeks the following types of information about his enterprise:

1. *Sales, cost, and gross profit on each classification of merchandise and service*—If physical inventories are checked with perpetual inventory records no particular difficulty is encountered so far as the merchandise items are concerned. However, in order to allocate costs to the services equitably it is imperative that rec-

ords be kept showing the cost of merchandise used (grease for greasing, patches for flats, and parts for other repairs) and the cost of the labor expended for each type of service. In small stations, where none of these latter records are kept, it is necessary to estimate the cost of the materials and labor used on a given service. The accurate allocation of costs to the revenue from repair work will present some difficulty where inadequate records are used.

2. *Perpetual inventory of merchandise*—In order to be able to order (and to check pilferage of) gasoline, oils, alcohols, and accessories when the supplies of these products are low, the dealer must have daily information about the merchandise on hand. This knowledge is secured from book records and physical counts, and the accuracy of the records is checked in three ways: (a) physical inventories of merchandise (taken at least once a month and generally every day), (b) daily "stickings" (inventories of gas and bulk oil checked by inserting a calibrated stick into the storage tank and then reading the result) and (c) daily pump meter readings (applied to gasoline only). These three practices are widespread.

3. *Comparison of current merchandise sales by units with sales of prior periods*—The alert proprietor is eager to watch his progress in selling gas, oils, and alcohols. He compares his unit sales in these products for the current month with the preceding month and with the same month last year. Thus, the service station industry, like other retail businesses, has its "Beat Yesterday."

Accounts Required

The owner of a service station wants information about his revenues in detail. This is necessitated by the very nature of the industry. Frequently, however, the proprietor is interested only in his expenses for the operating period under consideration without analysis. Nevertheless, expenses ought to be analyzed functionally. In the field of chain service stations it is obvious that the management must have an adequate expense analysis in order to control the enterprise effectively.

The expenses of the service station may be analyzed in the following manner:

Operating Expenses:
- Depreciation—Machinery
- Insurance (Compensation)
- Light and Heat
- Power
- Rent
- Sanitation
- Taxes—Payroll
- Unapplied Labor

Selling Expenses:
- Advertising
- Circulars
- Commissions and Bonuses

General and Administrative Expenses:
- Association Dues
- Bad Debts
- Depreciation—Office Equipment
- Insurance (General)
- Legal and Auditing
- Stationery, Printing and Postage
- Taxes—General
- Telephone and Telegraph

Operating Statements

The monthly operating results are reflected in a comparative profit and loss statement, which contains these four sections: (1) current month, (2) same month last year, (3) current period, and (4) same period last year. The percentages applicable to each division are also presented.

The form of this comparative profit and loss statement is shown below. Although the four sections previously mentioned should be presented, space limitations necessitate the use of operating figures for one period. In instances where certain conditions obtain, a different arrangement may be presented in the form of the profit and loss statement. These conditions are: (1) no comparative operating figures available and (2) no comparative operating figures desired by the management. This latter form of profit and loss statement conserves space by columnarizing sales, cost of sales, and gross profit horizontally.

A Service Station Profit and Loss Statement
For December 1940

		Amounts		%
Merchandise	Sales	x		100.00
(Analyzed by items as desired)	Cost of Sales ..	x		x
	Gross Profit		x	x
Services	Sales	x		100.00
(Analyzed by items as desired)	Cost of Sales ..	x		x
	Gross Profit		x	x
Total Merchandise and Services	Sales	x		100.00
	Cost of Sales ..	x		x
	Gross Profit		x	x

Operating Expenses	supported by	x		x
Selling Expenses	detailed	x		x
General and Administrative Expenses	schedules	x		x
Total Expenses			x	x
Net Operating Profit			x	x
Other Income:				
Cash Overages		x		x
Sale of Scrap		x		x
Total Other Income			x	x
Total Operating Profit and Other Income			x	x
Deductions from Income:				
Cash Shortages		x		x
Interest and Bank Charges		x		x
Total Deductions from Income			x	x
Net Profit before Drawings			x	x
Drawings			x	x
Net Profit after Drawings			x	x

Comments on Profit and Loss Statement

Cost of Sales accounts include material charges and cost of labor applicable to the specific type of revenue.

Gasoline—Special account is also termed Gasoline—Hightest or Gasoline—Ethyl. In any event the analysis of sales of gasoline into the two price ranges is desirable from the managerial point of view.

Alcohols and antifreeze preparations are properly included here.

Accessories includes anything from a valve cap to an auto heater. Batteries are generally included in the accessory classification, except where the volume warrants the raising of a separate revenue section.

The Repair Work division includes repair work of any nature, except repairs on flats. In the larger service stations this account is analyzed into its component parts: repair labor and repair parts. The sales, costs, and gross profit of each classification are separated.

The Parking and Storage account should be analyzed as follows, if the volume is sufficient: regulars, transients (overnight), and day parkers.

Operating Expenses:

a. *Sanitation*, the cost of laundering uniforms of attendants.

b. *Unapplied Labor* is set up in a special account. Most of the

labor costs can be allocated to the cost of sales accounts applicable to the various revenue accounts. However, it will be found that a small percentage of the labor will be unaccounted for, due to lost and idle time and (in some cases) to inadequate labor allocation records.

Balance Sheet

A Service Station Balance Sheet
December 31, 1940

Assets

Current:
- Cash in Bank
- Cash Register Fund
- Scrip on Hand
- Accounts Receivable
  - Less: Reserve for Bad Debts
- *Inventories:*
  - Gasoline—Regular
  - Gasoline—Special
  - Oil—Grade 1
  - Oil—Grade 2
  - Alcohols
  - Accessories
  - Tires and Tubes

Deferred Charges:
- Unexpired Insurance
- Prepaid Advertising, etc.

Fixed:
- Machinery and Equipment
  - Less: Reserve for Depreciation
- Service Vehicles
  - Less: Reserve for Depreciation
- Office Furniture and Fixtures
  - Less: Reserve for Depreciation

Liabilities and Capital

Current Liabilities:
- Notes Payable—Bank
- Notes Payable—Trade
- Notes Payable—Machinery
- Notes Payable—Others
- Accounts Payable
  - Less: Reserve for Accrued Discounts
- Accrued Expenses
- Accrued Taxes

Fixed Liabilities:
- Notes Payable—Machinery

Capital:

Certain balance sheet accounts are peculiar to the service station industry and therefore call for special comment.

Scrip on Hand—This account is similar to Accounts Receivable in that it arises out of charge sales. Because the sales to scrip customers helps to increase the station's volume (and hence the volume of its supplier), the national distributors of gasoline and allied products aid the dealer by cooperating in the following manner: A motorist who is going on a long trip and does not want to pay cash each time he stops at a service station makes out an application for credit at an office of the gasoline company whose products he buys (Gulf, Standard Oil, Sunoco, etc.). If his credit is deemed satisfactory he is given a credit card. When he goes to any service station throughout the country which sells the gasoline of the company that granted him the credit, he purchases products and services without paying for them in cash. A bill of sale is made out and the motorist's name, credit number, and license number are noted. The customer signs the bill and goes his way. These bills of sale, or scrip, are tantamount to cash in the hands of the service station owner, since they are considered as cash in the payment of bills due to the national distributor. The latter, in turn, will charge the motorist's account.

Scrip accounts are also used by local customers who deal with a service station that cannot afford to carry their accounts on its limited capital.

Reserve for Bad Debts—Evaluates the total of Scrip on Hand and Accounts Receivable.

Service Vehicles—When a towing car is used its cost is set up in this account, separate from other types of equipment.

Notes Payable—Machinery—Machinery is rarely bought for cash. A series of notes is usually given to the creditor, extending over a period of more than one year. The amount due within one year is considered a current liability, the balance a fixed indebtedness.

Bookkeeping Methods

It should be borne in mind that the small, and, at times the medium-sized, station cannot afford to employ a bookkeeper. Consequently, the work that ordinarily would be performed by one has to be taken over in part by the owner, aided by his attendants

and, perhaps, an accountant who appears on the scene periodically. Since the proprietor and attendants usually do not have high aptitudes for record keeping, the task of the independent public accountant is a mighty one. The bookkeeping system discussed below is complete but represents the extraordinary, rather than the average, scheme of things. It must be modified to the particular station's individual requirements.

The common books of final entry are also found in this industry:

1. Accounts receivable ledger
2. Fixed assets register
3. Accounts payable ledger (or voucher register)
4. Employees ledger—The Federal Insurance Contributions Act (amendments of 1939 in the Internal Revenue Code, Chap. 9, Sec. 1403) requires complete records.

Various additional records peculiar to service stations are as follows:

Records of Original Entry

The Daily Report Sheet is designed to fill a need which is created by the very nature of the industry. The great majority of sales are made for cash. Daily miscellaneous expenses are disbursed in cash. A good proportion of collections from accounts receivable are received in the form of currency. In the face of these numerous cash transactions which occur day in and day out a stringent control of all cash must be kept. Since only an infinitesimal proportion of service stations employ cashiers, it is apparent that the average station must call upon the employees themselves to perform the functions of both cashiers and attendants. Of course, the employer does his part in separating the two functions to the best of his ability. He will handle the cash when he is on duty, thereby leaving the attendant free to sell products and services. However, where there is more than one shift the proprietor, of necessity, must entrust the responsibility of handling the cash to an attendant. Further, when a number of customers are waiting for service it is incumbent upon the owner to act as attendant, in which case he is not free to act as cashier.

In order to maintain a satisfactory internal check system it is mandatory for the existence of the enterprise that the daily report sheet be utilized as a record of original entry. The form which

follows has been designed by the writer and contains a number of features found in report sheets used by successful operators.

DAILY REPORT SHEET

Date May 11, 1941

CUSTOMER SECTION

Charge Number	Name and Details	Folio	Scrip on Hand	Regular Charges	Collections (A)	Allowances (B)	Accts. Rec. Credit (A & B)
A—7777	Art Jones		5 —				
	Henry Black—on a/c	√			20 —		20 —
1000	James Brown	√		1 31			
	G. A. Ess—4/27 bill	√			5 24	26	5 50
	TOTALS		Ⓑ 5 —	Ⓒ 1 31	25 24	Ⓓ 26	Ⓗ 25 50

SALES AND INVENTORY COMPUTATIONS

	Gas-Reg. (Gals.)	Gas-Spec (Gals.)	Oil-1 (Gals.)	Oil-2 (Gals.)	Alcohol (Gals.)	Batteries	Tires	Tubes
OPENING INVENTORY	400	250	15	12	15	10	20	10
RECEIPTS	250	—	10	—	5	—	5	5
TOTAL AVAILABLE	650	250	25	12	20	10	25	15
CLOSING INVENTORY	500	150	20	9	19	10	25	13
SALES—UNITS	150	100	5	3	1	—	—	2
UNIT PRICE	.15	.17	1 20	1.—	3—	6.—	7.—	1.—
SALES—DOLLARS	22 50	17—	6.—	3—	3—	—	—	2.

GASOLINE METER READINGS

Type of Gasoline	Pump No.	Closing	Opening	Total Sales	
REGULAR	1	9 880	9 830	50	
	2	6 075	6 000	75	
	3	4 325	4 300	25	150
SPECIAL	4	8 440	8 400	40	
	5	380	340	40	
	6	970	950	20	100
TOTALS		30 070	29 820	250	250

Remarks:

DAILY REPORT SHEET

Man in Charge Joe Brown Date May 11, 1941

Weather Springy Day ✓ Night

REGISTER READINGS	CASH		CHARGE		REC'D ON ACCT	
END OF SHIFT	848	97	175	51	87	44
START OF SHIFT	786	63	169	20	62	20
DIFFERENCE	62	34	6	31	25	24

CASH SECTION

CASH SALES		62	34
REC'D ON ACCT.		25	24
TOTAL RECEIPTS		87	58

PAID OUT		
Sanitation	1	50
Station Repairs	3	—
Drawings	5	—

TOTAL PAID OUT	F	9	50
BALANCE TO BE ACCOUNTED FOR		78	08
BANK DEPOSIT	A	78	02
SHORT OR OVER	E		06

SALES SECTION

CASH SALES (PER ABOVE)			62	34
CHARGE SALES (PER ABOVE)			6	31
TOTAL SALES (INCL SALES TAX)			68	65

SALES ANALYSIS

GAS—REGULAR	150 GAL		22	53
GAS—SPECIAL	100 "		17	05
OIL—GRADE 1	5 "		6	—
OIL—GRADE 2	3 "		3	—
ALCOHOL	1 "		3	—
ACCESSORIES			3	—
TIRES AND TUBES			2	—
TOTAL MDSE. SALES		G	56	58
N.Y.C SALES TAX (2%)			1	13
WASHING			2	—
GREASING			3	—
FLATS			1	—
REPAIRS			2	94
PARKING AND STORAGE			2	—
TOTAL SALES AND TAX			68	65

SUMMARY ENTRY

DR.

CASH	A	78	02
SCRIP ON HAND	B	5	—
ACCOUNTS RECEIVABLE	C	1	31
SALES ALLOWANCES	D		26
SHORTAGES	E		06
PAID OUT	F	9	50
TOTALS		94	15

CR.

GAS—REGULAR	150 GAL.		22	53
GAS—SPECIAL	100 "		17	05
OIL—GRADE 1	5 "		6	—
OIL—GRADE 2	3 "		3	—
ALCOHOL	1 "		3	—
ACCESSORIES			3	—
TIRES AND TUBES		G	2	—
SALES TAX PAYABLE			1	13
WASHING			2	—
GREASING			3	—
FLATS			1	—
REPAIRS			2	94
PARKING AND STORAGE			2	—
ACCOUNTS RECEIVABLE		H	25	50
OVERAGES			—	—
GENERAL			—	—
TOTALS			94	15

The following general comments on the report sheet are pertinent here:

1. The weather record is used for comparative purposes. A drop in sales volume for a given period for particular products (antifreeze, etc.) may be explained satisfactorily in the light of weather information.
2. No identification numbers are needed, since the date and shift are noted in the upper right-hand corner.
3. The sheets are generally kept in loose-leaf binders to facilitate their handling.
4. The cash register tape is cut at the end of each shift. Each tape should be attached to its related report form so that, if need be, reference may be made to any original cash transaction.

The following discussion of certain sections of the report sheet might be helpful to the reader.

Sales: Dollar figures are obtained from the cumulative total recorded in the cash register. If the register does not allow for a detailed analysis of sales and sales tax, a breakdown may be secured in the following way. As a sale is registered for an item for which there is no classification key on the register, a register tape notation is made of the grouping of the item just sold. At the end of a shift, the tape is analyzed and a summary is recorded at the bottom. Where numerous transactions occur daily it is essential, of course, that a register be employed which will automatically accumulate the totals for the various classes of sales.

The sales (in gallons) of gasoline, oil, and alcohol are taken from the sales and inventory section (on the back of the form).

Customer: As a regular charge sale or a sale evidenced by scrip is made it is rung up on the register and entered in detail in this section. Collections and allowances (see collection from G. A. Ess) are likewise recorded here immediately after ringing up the transaction. The total of the first two columns must equal the register reading for Charge Sales and the total of Collection (A) must coincide with the reading for Received on Account. The Charge Sales and Received on Account readings are found in the register readings section. (See front of the form.)

Sales and Inventory Computations: are the keystones of the report sheet. It indicates whether or not the sales of the specified products are accounted for. It should be noted that, with the exception of accessories, all the merchandise items available for sale are recorded here. Accessories are generally omitted since

this group includes many different items whose unit values are small. In the event enough volume is obtained in a given accessory (for example, batteries on the form) a separate column should be raised.

1. Opening and Closing Inventories
   a. *Gas*—The "sticking" method (as described under "Theory of Accounts") is employed to obtain opening and closing inventories. Naturally, the closing inventory of one shift will be the same as the opening inventory of the next shift. This also applies to the following items.
   b. *Oil*—The inventories of bulk oil are secured by "sticking." The inventories of oil in cans are obtained by physical count.
   c. *Alcohol, batteries, tires, and tubes*—Physical count.
2. Receipts (of merchandise)—Entries on this line are made as the items are received during the shift. If it is the practice for more than one delivery of gas to be made during a shift, it is best to note each delivery separately in the remarks section. The invoice number of each delivery should be mentioned. If this procedure is followed the total deliveries will be entered as receipts.

It will be observed that the "sales dollars" amounts for regular and special gasoline are 3 and 5 cents respectively, below the amounts actually received, as shown in the sales analysis section. Generally speaking, differences are due to accidental undercharges or overcharges and to accumulations, where the sales price per gallon ends in a fraction of a cent (e.g., 15.4 cents). Fairly substantial differences bear investigation.

Gasoline Meter Readings: The sales of regular and special gasoline should agree with the gallons sold as computed in the previous section. Slight discrepancies in totals usually occur, however, because the stick readings may not be measured to the exact gallon. Where differences of more than 3 gallons show these may be due to any one, or a combination, of the following factors: (1) excessive spilling of gasoline, (2) defective pump meters, (3) evaporation and/or seepage of gasoline through the storage tank, (4) pilferage on the part of outsiders or attendants, and (5) arithmetical errors in computing the number of gallons which should have been sold or in taking the meter readings.

Summary Entry is the compound entry found in the combination

cash receipts and sales journal (which will be discussed shortly). Each shift's transactions are entered on one line.

The encircled letters which appear throughout the form are used for illustrative purposes. They are also used in practice, but only to a limited extent.

Letters in Summary Entry	Section from Which Information Is Obtained
A, E, F	Cash
B, C, D, H	Customer
G	Sales

It will be noted that G is almost an exact copy of the sales analysis section. When the person who fills out the report form is the one who prepares the Summary, the Sales may be omitted, the credit side of the Summary being used for that purpose. However, when an attendant or the employer prepares the sales analysis and either the bookkeeper or accountant formulates the Summary the form of the illustrated report sheet is satisfactory. Any errors that may have occurred in Sales may be adjusted in Summary.

The advantages of using the daily report sheet are: (1) facilitates discovering the cause of shortages in cash or merchandise, (2) simplifies bookkeeping considerably, and (3) controls failure to ring up sales.

The Combination Cash Receipts and Sales Journal summarizes the results of the daily report sheets and, in turn, is summarized in the general ledger.

The columnarization of this journal should follow the scheme laid out in the Summary Entry—all the debit and credit columns are listed in the same order as the accounts appear in the Summary. Columns are designed for dollar values and for units sold (in the case of gas, oil, and alcohols) during each shift. Recording the number of units sold is essential for both managerial and tax purposes.

When the Summary on the report form is transferred to the journal, only one column need be analyzed in the latter record—Paid Out. The analysis is obtained by referring to the report sheets and drawing off the information from the paid out division of Cash.

The Scrip Charge is made out in triplicate. The original is filed according to date of sale. When a payment is made to the gasoline distributor the oldest slips are removed from the file, entered on a summary sheet (provided by the distributor) and deducted, in total, from the balance due.

The duplicate slip is filed according to date of sale in those cases where the sale was made to an out-of-town customer. When the scrip charge was made to a local customer (who buys regularly), it should be entered on his ledger sheet or filed alphabetically for future reference. The triplicate slip is given to the customer.

Records of Final Entry

Inventory Records are not usually needed by the station since the information that would be contained therein is incorporated in other records. For example,

1. Purchases Data
   a. Inventory on back of illustrated report form
   b. Special columns in the cash disbursements book, which reflect the number of gallons of gas, oil, and alcohol purchased. This method is used where the cash basis of accounting is employed.
   c. Special columns in the purchase book. This method is used where the business is on the accrual basis.
2. Sales Data
   a. Inventory section on back of illustrated report form
   b. Combination cash receipts and sales journal

Labor Allocation Record is used in order to apportion scientifically the time of each attendant to the various types of revenue. A labor allocation record may be incorporated in the payroll record or set up separately. *At the end of each shift* each attendant accounts for his total hours on duty, analyzed according to the type of income on which his labor has been expended. Idle and lost time are chargeable to the Unapplied Labor account mentioned in the "Comments on Profit and Loss Statement."

Records of Material Cost of Services—Columns are provided for the services for which materials may be used, namely, (1) Greasing (grease), (2) Flats (large and small patches), and (3) Repairs (brake lining, points, etc.).

A separate page (or card) is provided for each shift each day. Entries to the appropriate column on each page are made by an attendant *immediately after* the merchandise is withdrawn from

stock. The monthly totals are the bases for the following proforma entry:

Cost of Sales (specific service)	xx	
Purchases (merchandise used for that service)		xx

Accounting for Service Station Chains

In general the principles and practical procedures laid down in the previous discussion of the independent station are equally applicable to the chain. The physical decentralization inherent in chain operation must be offset, however, in some degree by an accounting system which, by coordinating the numerous activities of all the units, centralizes the control in the home office. A stringent check is exercised over the following:

1. *Cash*—The daily receipts are picked up by a bonded collector who returns the cash to the home office. All individual station deposits are made by the home office, which also pays the bills for each unit of the chain. The petty cash fund maintained at each station should be audited periodically.
2. *Accounts Receivable*—All requests for credit are referred by the station manager to the home office, which checks the rating of the applicant. At the end of each month the manager forwards a schedule of receivables, analyzed according to date of sale, to the main office.
3. *Merchandise*—Book inventories are maintained. Surprise station audits, including the taking of a physical inventory, are made by the chain's auditors from time to time. The manager of each unit is held accountable for discrepancies between book and physical inventories.

Each station manager is usually a bonded employee. In order to serve as an incentive to increase the station's profits, many chains offer bonuses and/or a share of the station's profits to the managers and in some instances to attendants.

Generally, gas and bulk oil are ordered directly from the distributor of gasoline by each station manager according to his station's needs. In certain instances the warehouse, which is maintained by the chain, contains storage tanks for gasoline and oil. These items are distributed by trucks to the units. By purchasing large quantities of gas and oil at one location (the warehouse) the chain is able to effect price economies. Canned oils, alcohols, and accessories are stored in the warehouse and distributed to stations upon requisitions from the managers.

In addition to the information desired by the independent operator, the chain management wants to know which units are operating

profitably and which are not. In order to obtain these data expeditiously, it is essential to set up separate accounts in the general ledger for each station. The revenues, merchandise costs, and expenses are analyzed in detail on each station's ledger sheet.

A separate profit and loss statement for each unit and a consolidated profit and loss statement are necessary. Although individual balance sheets for the units are not prepared, each unit's total receivables and inventories are incorporated in subsidiary schedules to the consolidated balance sheet.

In order to secure the information for the supporting schedules of receivables and inventories mentioned above, separate controlling accounts and subsidiary ledgers for each unit are maintained for these items.

ACCOUNTING FOR THE GENERAL MANUFACTURER

By

S. J. Shaffer *

Brief Description of Business

General manufacturing concerns operate by combining or converting raw or semifinished materials into finished products. The activities of such concerns are similar to those of commercial firms engaged in the marketing of merchandise, except that a manufacturing concern generally performs processing operations prior to the sale of merchandise.

The basic control problem of a manufacturing concern is that of effectively coordinating the dual activities of manufacturing and marketing. To accomplish this end, and at the same time secure a fairly stable operating schedule in the plant, the manufacturer usually strikes a balance between manufacturing for stock and for special orders.

Manufacturing for stock results in lower costs through larger production runs, offers an equalizing factor for leveling factory operations, and results in immediate deliveries to customers. On the other hand, manufacturing upon receipt of order decreases inventories and warehousing expenses, and minimizes the hazards of depreciation of merchandise and style changes.

Continued business success usually demands that the manufacturer engage in the development of new products. Depending upon the size of the business, the steps outlined below in the development of new products may be performed by a staff of specialists in the large business, or by the proprietor himself, in the smaller concern.

All new products first begin with an idea, that grows into a preliminary sample. The sample is then appraised and scrutinized by management, the technical men, and the sales department, who

* Supervisor of Budgets, R. H. Macy, Inc., New York City.

may dictate as to what the manufacturing costs must be for ready salability. After approval of estimated costs furnished by the cost men, complete material and operation specifications are prepared, and tools are ordered.

Upon start of production, the cost men report actual manufacturing costs, so that major variations from predetermined costs can be controlled. After manufacturing development of the new item is completed, the production control plan is developed to guid future operating rates.

If the item is to be carried in stock, periodic stock production orders are released by the production manager. Skilful coordition of sales demand and factory operations are required for the proper release of such production orders.

Upon receipt of a customer's order for stock merchandise, a shipping order is issued, acting as a requisition to release the designated merchandise to the shipping department. Upon shipment, the customer's invoice is prepared. In small plants, a combination factory order and invoice form is often used, resulting in clerical economy.

Special orders may cover special items differing from the standard product, or standard items manufactured only upon customers' orders. In either case, a production order is issued upon receipt of the customer's order, together with the necessary material lists and manufacturing specifications for special items.

Copies of the production order are distributed to all manufacturing divisions concerned, who requisition the necessary raw materials, and perform the specified operations. When the completed order passes final inspection, it is reported to the production department, and transferred to the shipping department. The shipping memo is then forwarded to the billing clerk, where the invoice copies are prepared.

Manufacturers usually sell their product to other manufacturers, wholesalers, and retailers. It is not common for a manufacturer of any size to sell directly to the consumer.

To properly cover his selling area, the manufacturer may have one or more plants that specialize in selected items in the complete line. In addition, use is often made of regional warehouses, for prompter and more economical delivery. These warehouses may be owned by the manufacturer, or may be owned by sales agents.

Theory of Accounts

The accounting process for a manufacturer is similar to that of a commercial concern, with the addition of cost accounts for the manufacturing process. These deal especially with the changes in valuation of the factory product as it undergoes the manufacturing process. In performing this function, the cost accounts serve a threefold purpose: (1) they reflect the inventory investment in raw materials, work in process, and finished goods, (2) they furnish information and standards by which production efficiency is judged, by furnishing costs of merchandise manufactured, and (3) they furnish information to general management for guidance in buying and selling.

In order to reflect the results of the manufacturing operations, the cost account entries closely follow the production processes, and accumulate information on the important elements of the manufacturing process.

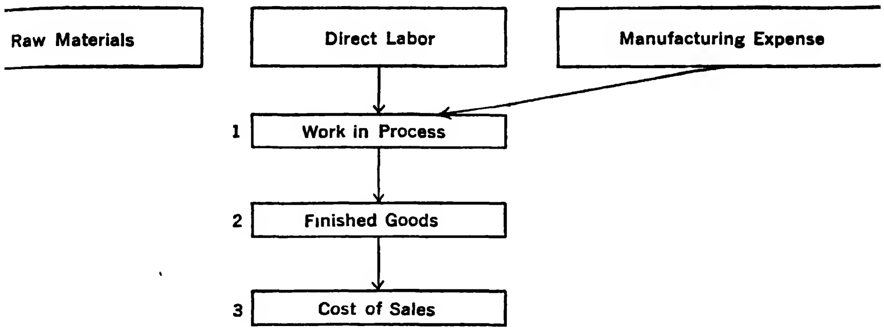
The early conception of cost accounts was that of enabling the manufacturer to set proper selling prices. Of late, however, it is being realized that more often competition and the dictates of the market set selling prices, therefore, the cost accounts show whether the manufacturer is within safe limits on the amount spent on manufacturing his product. This results in cost accounting leading the way to cost reduction for profitable manufacturing.

Cost Accounts

Cost accounts are usually arranged into two groups:

1. Inventory
    - Raw Materials
    - Work in Process
        - Material in Process
        - Labor in Process
        - Overhead in Process
    - Finished Goods
2. Manufacturing
    - Direct Labor
    - Indirect Labor
    - Manufacturing Expenses

The basic cost-accounting entries are outlined in the following chart:



Step 1. Raw materials used, direct labor and manufacturing expense are closed into Work in Process.

Step 2. Completed goods are closed into Finished Goods account and credited to Work in Process.

Step 3. Sold merchandise is charged to Cost of Sales, and credited to Finished Goods.

Inventory Control

Perpetual inventory accounts have two objectives, namely, (1) to furnish statistical data to management, so that inventories may be well balanced, thus assisting in satisfactory turnover, and (2) to detect fraud or carelessness in the handling of inventories.

Inventory shortages are disclosed by comparison of physical inventories with book figures. They present serious problems, if substantial and may indicate either a physical loss of merchandise or inaccurate accounting methods. A survey of both accounting and manufacturing methods is essential to determine the source of such shortage.

Factory Overhead

Manufacturing expense is the term usually applied to those expenses that make up the factory overhead. All manufacturing expenses are ultimately charged into the Work in Process account. As the goods are completed, the manufacturing expense element is transferred from Work in Process to Finished Goods account, along with the labor and material costs of the completed goods.

One of the principal problems in all cost systems is the determination of proper bases for distributing manufacturing expense to

the product costs. One of the simplest methods, used very extensively, is to distribute overhead as a percentage of direct labor. This method presumes that manufacturing expenses are mainly created in conjunction with direct labor expenditures, and should be allocated in proportion to the direct labor cost of the product

Accounts Required

General Ledger Accounts

The general ledger usually contains eight major account groups, arranged so as to simplify the preparation of statements as follows:

1. Assets 1–99
   - 1– 9 Cash Accounts
   - 10 Cost ledger control
   - 11–19 Prepaid expenses
   - 20–29 Investments
   - 30–39 Accounts Receivable
   - 40–49 Fixed Assets
   - 50–59 Deferred Charges
2. Liabilities 100–199
   - 100–109 Current liabilities
   - 110–119 Deferred credits
   - 120–129 Reserves
   - 130–139 Fixed Liabilities
   - 140–149 Capital and surplus
3. Sales Accounts 200–249
   - 200–229 Sales accounts
   - 230–249 Return Accounts
4. Cost of Sales Accounts 250–299
5. Selling Expense Accounts 300–399
6. Administrative Expense Accounts 400–499
7. Income Credit Accounts 500–549
8. Income Charges Accounts 550–599

Cost Accounts

It is usually desirable to segregate the cost accounts from the general ledger accounts, because of the great variation between the two types of entries.

When a cost ledger is used, the general ledger carries a single cost ledger control account, shown in the previous chart of accounts. Whether the cost accounts are segregated in a separate ledger or carried in the general ledger, the following group of accounts would be typical.

Inventory Accounts 600–699

600–649	Raw Materials
650–659	Work in Process
660–699	Finished Goods

Manufacturing Accounts 700–799

700–709	Direct Labor
710–719	Indirect Labor
720–729	Manufacturing Salaries
730–739	Insurance
740–749	Fuel
750–759	Repairs
760–769	Manufacturing depreciation accounts
770–779	Building expenses
780–789	Sundry supplies
790–798	Sundry manufacturing expenses
799	General ledger control

Natural Accounts

With very little added detail, the general expense accounts can be arranged so that they fall into natural expense groups. For example:

Account No.	*Expense*
320	Salesmen's salaries
420	Administrative office salaries
720	Manufacturing executive salaries
331	Fire Insurance—delivery trucks
431	Fire Insurance—office equipment
731	Fire Insurance—factory tools

Functional Accounts

In addition, if the size of the business warrants, the accounts may be further standardized by assigning a prefix to each functional group that accumulates expense, as follows:

01	Raw Material Stockroom
02	Maintenance Shop
03	Cutting Room
04	Sewing Room
05	Punch Press Department
06	Paint Shop

The functional codes may prefix the expense account; for example, direct labor in paint shop may be 06-700.

Operating Statements

Owing to the relative complexity of the physical inventory process, many manufacturers take a physical inventory only once a year. Between inventory dates, interim profit and loss statements present no problem to the manufacturer who operates a complete cost accounting system, as cost of sales figures are usually readily available.

Many manufacturers, however, operate without the benefit of a cost system; others have a sound knowledge of costs, but find it impractical to attempt to cost each sale. Such manufacturers commonly use one of the following methods to obtain cost of sales, and consequent gross profit: (1) by using an estimated gross profit percentage, which is applied to sales, (2) by estimating inventories by visual inspection, or by comparing current inventories with the

Condensed Profit and Loss Statement

	Product A	Product B	Total
Gross Sales			
Less Sales Returns			
Net Sales			
Less Cost of Goods Sold (Schedule A)			
Gross Profit on Sales			
Selling Expense (Supporting Schedule)			
Administrative Expense (Supporting Schedule)			
Net Profit on Sales			
Add Other Income			
Less Other Expenses			
Net Profit			

Schedule A

Statement of Cost of Goods Sold

	Product A	Product B	Total
Direct Materials Used			
Direct Labor			
Manufacturing Expense (Schedule)			
Cost of Manufacture			
Add Work in Process Beginning of Period			
Less Work in Process End of Period			
Cost of Goods Manufactured			
Add Finished Goods Beginning of Period			
Less Finished Goods End of Period			
Cost of Goods Sold			

last physical inventory figures, (3) by using fixed inventory totals, if the manufacturing operations are sufficiently stable, or (4) by using breakeven inventory values, that will result in neither profit nor loss. By comparing this theoretical breakeven inventory with past physical inventories, a guide to current profits (or losses) is obtained.

A typical profit and loss statement, together with a supporting schedule of cost of goods sold is shown below. The statements shown are arranged to furnish profit and loss for the major products of the manufacturer. This breakdown by product group is very informative, but is not always practical to prepare. It is common practice also to prepare comparative statements, showing the comparison with the previous year.

After computing gross profit on sales by product, it is usually impractical to carry the breakdown of expenses by product through selling and administrative expense.

Balance Sheet

The form of a typical manufacturing balance sheet is generally understood and differs from a trading concern, mainly, in that the inventory section is usually analyzed into its major components—raw materials, work in process, finished goods, and manufacturing supplies.

In addition, the balance sheet may show unamortized research and development expenses, carried as a deferred asset. This treatment is justified (1) when such expenses have probabilities of bringing future returns, and (2) when such expenses are being amortized on a regular basis in keeping with the benefits to accrue.

Amortization of such expenses is usually charged to general manufacturing overhead. Patent costs are usually amortized over the term of the patent, providing the patent continues to be of value.

Because of the inherent nature of the manufacturing process, a large part of the capital of a manufacturing concern is represented by fixed assets, buildings, machinery, tools, and equipment. The use of proper depreciation schedules is quite important in securing accurate insurance coverage and financial statements.

Many manufacturers maintain plant, machinery, tool, and equipment ledgers, wherein each capital item is registered, together with

an estimate of its life, its scrap value, and its annual depreciation charges. In this way, equipment ledgers furnish all required information for making up depreciation schedules.

Bookkeeping Records

Cost Ledgers usually carry two separate groups of accounts. The inventory group contains all raw material stores accounts, work in process, and finished goods accounts. Entries to this group of accounts are usually based on summary reports of raw materials received, raw materials consumed, finished goods completed, and a summary of finished goods sold.

The second group of cost accounts contains the manufacturing accounts, including direct labor, indirect labor, and manufacturing expense accounts. At periodic intervals, these accounts are closed into Work in Process.

Very often, standard costs are used for the entries described above, but at the end-of-year closing, these predetermined rates must be converted through special entries to reflect actual figures.

The Accounts Receivable Ledger contains a record of each open account, and is charged with all shipments of goods, and credited with cash receipts.

Plant and Equipment Ledgers contain a complete history of each capital asset, as previously described in the balance sheet section.

The Payroll Record contains records of each individual employee. The individual records and summary cards are filed by department, so that department distributions of payrolls are easily secured by determining the total of the individual earnings. The department payroll summary is then entered in the voucher register, to reflect the payroll accrual.

The Voucher Register forms the main source of the ledger entries for purchases and expenses for the many manufacturers that use the voucher system. The payroll summary is also entered in the voucher register for proper distribution to the expense accounts concerned. All checks including the payroll check are then debited to Vouchers Payable account.

The Cost Book represents the essence of any cost system, and contains a statistical record of the factory cost of each item manufactured. The cost book is often used for the following purposes:

1. For costing finished goods, to obtain cost of goods manufactured.
2. For costing invoices, to obtain cost of goods sold.
3. For preparing estimates for special or semi-special products.
4. For quoting special prices for varying quantities of items.
5. For indicating costs out-of-line, as a basis for cost reduction surveys.

If a concern uses the production order cost system, where the cost of each specific order is accumulated, the cost book carries a record of production orders in process, which total is tied in with the work in process account.

ACCOUNTING IN THE HOSIERY INDUSTRY

By
LLOYD F. MOGEL*

BRIEF DESCRIPTION OF BUSINESS

Hosiery is produced in plants ranging in size from a few machines operated by a fixer or machine adjuster and a few auxiliary help, to large plants employing up to 4,000 people. There are two general classifications of hosiery; (a) full-fashioned hosiery, and (b) seamless hosiery.

(a) Full-fashioned hosiery is made on flat-bed knitting machines which usually knit from 24 to 32 stockings simultaneously. The fabric is subsequently seamed into a finished stocking. The stockings are then dyed, boarded, paired, and packed into boxes or suitable containers for sale in stores. Full-fashioned hosiery for ladies is comparatively staple in construction and material, being made predominately from nylon, or rayon and some cotton. However, there is a seasonal problem in ladies' hose with regard to color, light shades predominating in spring and summer, and dark shades in fall and winter. The shades change each season to match the latest creations in dresses and footwear. To keep inventory investment and merchandising losses to a minimum, careful planning and proper records are necessary.

(b) Seamless hosiery is made on a cylindrical machine which knits the stocking as a tubular fabric, the toe portion being looped or closed later to complete the stocking. The stockings are then dyed, boarded, paired, and packed into boxes or suitable containers for sale in stores. Seamless hosiery is made on machines that have many pattern possibilities and present a styling problem. Most of the seamless machinery is used for men's and children's hose. A change in patterns and color combinations is demanded by the trade from season to season. Light shades and short, ankle lengths predominate in spring and summer, whereas dark shades and a larger

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proportion of longer lengths are in demand in fall and winter. However, short, ankle lengths are also worn in fall and winter. At the end of each season (each six months) the manufacturer is faced with close-outs because of style and color. The extent of this sacrifice of inventory depends on how good the control of merchandising was, and on how closely the production schedules followed the demands of the trade.

The materials used are yarns of nylon, cotton, rayon, wool, spun nylon, spun rayon, rubber thread, etc. Usually the materials are purchased in a finished state ready for use on the knitting machines, but some of the larger mills purchase the yarns in a semifinished state. Nylon yarns then require either sizing or additional twist, or both. Other yarns may require dyeing and winding onto the proper bobbins for use on the knitting machines.

In recent years the hosiery business has undergone revolutionary changes in the manufacturing processes. This has caused rapid obsolescence in machinery, making the older types of machines unprofitable. As an example, in the full-fashioned industry, five operations necessary to make a stocking on the older type machines are now performed in two operations (not including the finishing operations). Operations required on the old machines are: legging, topping, footing, looping, and seaming. Operations on the new machines are: legging (or knitting both leg and foot), and seaming.

Competition is so keen that improper accounting and costs can soon lead to disaster for a manufacturer.

The hosiery business is usually operated as a process system, and the accounting system should be designed to show the results of such manufacturing.

Theory of Accounts

In a process cost system, standard costs are essential to a practical accounting for the manufacturing. Standard costs are set up for each style produced. Instead of keeping actual costs by each operation or lot, standards are set for the various operations, and standard prices are established for each kind of material purchased or produced. Cost sheets are prepared based on the specifications or construction details for any particular style.

Material costs are determined by making weight tests on a test

run. This is done by weighing the various yarns at the beginning of the run and again weighing the yarn left on the machine at the end of the test. The difference represents the quantity of yarn used for the hosiery produced. This is converted to weight per dozen to which is added an allowance for waste—usually 5% to 8%. These weights priced at standard prices will be the material cost per dozen. (See Standard Cost Sheet, Exhibit A.)

EXHIBIT A

STANDARD COST SHEET
Cost per dozen Pairs

51 gauge Ladies Nylon Full-Fashioned — Style No. 1600

MATERIAL		Weight	Price	Amount	
Welt	50 Denier 10 Turns Nylon	.201	3.15	.633	
Body	15 Denier 10 Turns Nylon	.140	8.00	1.120	
Reinf	40 Denier 10 Turns Nylon	.050	3.40	.170	
Ravel	80/2 C.P.M. Cotton	.005	1.50	.008	
Seam	K-6 Nylon	.005	9.25	.046	
		.401		1.977	1.977

LABOR STANDARD AND OVERHEAD

	Stand. No. of OH units	Direct Labor	Standard Overhead Rate	Standard Overhead Amount	Total Lab. and OH	
Legging	.657	1.750	1.35	.887	2.637	0.936
Needles				.040	.040	
Unearned Wages			.03	.030	.030	
Depreciation on Machs.	.657		.45	.296	.296	
Looping	.121	.140	.55	.067	.207	
Seaming	.401	.480	.55	.221	.701	
Examining	.070	.100	.85	.060	.160	
Mending	.100	.160	.85	.085	.245	
Preboarding	.062	.145	2.00	.124	.269	
Dyeing	.401	.010	.18	.072	.082	
Boarding	.055	.140	2.00	.110	.250	
Pairing	.130	.150	1.02	.133	.283	
Finished Mending	.096	.120	.85	.082	.202	
Packing	.150	.180	.75	.113	.293	
Pension 4% of Direct Labor		.135			.135	
		3.510		2.320	5.830	5.830

Dyestuffs		.125
Packing Supplies		.250
Total Cost Finished		8.182
Loss on Irregulars (Based on 75% Regulars)		.834
Total Cost—Cost of Sales		9.016
Shipping Expense	1% of Selling Price	.120
Selling Expense	10% " " "	1.200
Administrative Expense	5% " " "	.600
Total Cost Sold		10.936
Selling Price		12.000
Net Profit		1.064

Calculation of Loss on Irregulars

Cost of 25 dozen @ 8.182					204.55
Salvage value 15 doz. Irreg.	@	650	97.50		
" " 7 " Seconds	@	5.50	38.50		
" " 2 " Thirds	@	3.00	6.00		
" " 1 " Rags	@	0	0		142.00
Loss on 100% of production					62.55
Loss on Firsts only 62.55 divided by 75% is					.834 per dozen

Labor costs on the cost sheets are the operations required to complete the particular style priced at standard cost (usually the piecework rate).

Overhead costs are computed by extending the labor hours for each operation by the standard rate for each department. To these costs are added standard percentages of selling and administrative expenses.

The importance of these standard cost sheets will be seen in the subsequent discussions. These costs are the basis for the accounting entries reflecting all activities of the business. They are used to price production, inventory, and cost of sales.

Materials. The materials when purchased are priced at standard value and carried in the yarn inventory at standard value. The difference between actual and standard values is written off to variance accounts which are part of the profit and loss statement. The value of production and inventory is carried on the books at standard cost.

Labor. The payroll, when summarized by operations and by styles, is evaluated at standard cost and charged to work-in-process inventory at standard, and variations are charged to variance accounts. In this industry labor is about 95% piecework. The piecework rate in effect at the beginning of the season is used as the standard. If any changes in rate occur, they will be revised in the next change of standards (the next budget), unless the change is too radical due to new wage contracts. This may necessitate a change in standards at the time of the new wage negotiations.

Overhead. The actual expenses are charged into departmental operating expenses. Purchases are charged direct to the departmental expenses. Indirect labor is distributed to these expense accounts from the payroll analysis. Overhead is absorbed by extending the production by operations times the standard overhead on the cost sheets. The unabsorbed overhead is carried in variance

accounts. The standard rate of overhead is determined by preparing a budget for departmental expenses and dividing into these expenses the predetermined or budgeted capacity. Budgets should be prepared about every six months. This coincides with the two business cycles in the hosiery industry.

Selling and Administrative. Selling and administrative expenses should also be budgeted, which, divided by the expected sales volume, will give the standard rate to use on cost sheets and estimates.

Exhibit B

PROFIT AND LOSS STATEMENT

Month of__________

	Total		Full Fashioned		Seamless	
	Current Month	Year to Date	Current Month	Year to Date	Current Month	Year to Date
Gross Sales						
Less						
Returned Sales						
Discount of Sales						
Net Sales						
Standard Cost of Sales						
Gross Profit at Standard Cost						
Variances:						
Material Price						
Material Usage						
Loss on Irregulars						
Outside Operations						
Direct Labor						
Overhead						
Gross Profit at Actual						
Shipping Expense						
Selling Expense						
Advertising Expense						
Administrative Expense						
Net Profit (Operating Profit)						
Other Income or Expenses						
Net Income before Income Taxes						

Actual expenses are absorbed in the monthly profit and loss statement.

Loss on Irregulars. After stockings are finished, they are inspected and graded as Firsts, Irregulars, Seconds, Thirds, Rags. The grades below first grade are usually sold at a price lower than cost and are therefore carried in the inventory at salvage value. This loss must be absorbed by the first quality. (See Standard Cost Sheet, Exhibit A.)

Variances. Variation from standard costs are carried in variance

accounts which appear on the monthly profit and loss statement (Exhibit B). By charging off these variances, the inventories are carried on the balance sheet at standard cost. In some cases these variances are carried in suspense and are charged to profit and loss in proportion to cost of shipments or sales. The balances in the variances in such cases at the end of a month represent the unabsorbed variance applying to the inventory on hand. This would give the effect of carrying the inventory on the balance sheet at actual cost. This, however, requires additional and complicated calculations and may not be desired or required.

Accounts Required

The accounts required for a typical hosiery mill making several types of hosiery would be as listed in the Chart of Accounts (Exhibit C). The General Ledger accounts are arranged in the general order as shown on the Balance Sheet. This chart provides for a separate Factory Ledger in which the inventory and manufacturing operating accounts are kept.

Referring to the chart, it will be noticed that the accounts are in two main divisions, each of which is further listed in two divisions.

General Ledger	Balance Sheet	1–000 to 2–601
	Profit and Loss	3–000 to 5–009
Factory Ledger	Inventories	90–000
	Mfg. Dept. Expenses	

The prefix denotes the department.
The suffix denotes the particular account.

The account numbers are arranged to allow for substantial expansion in classifications and expansion by departments. The General Ledger is composed of loose-leaf sheets in a binder. There is an account entered in the General Ledger for each account number in the left-hand column of the Chart of Accounts. The sub-account numbers are a breakdown of the main account and are kept on loose-leaf cards which are controlled by the ledger account. This allows for comprehensive details and still gives the condensed accounts in the General Ledger for report purposes.

Exhibit C

CHART OF ACCOUNTS

GENERAL LEDGER

Account Number	Sub-Account Number	Account
Current Assets		
1–000		Cash
	1–001	First National Bank
	1–002	Petty Cash—Home Office
	1–003	Petty Cash—Branch Office
	1–004	Chase National Bank
1–120		Accounts Receivable Trade
1–121		Reserve for Bad Debts
1–130		Notes Receivable
1–200		Factory Ledger Control
Fixed Assets		
1–300		Land
1–400		Buildings
	1–401	Main Plant #1
	1–402	Branch Plant #2
	1–403	Branch Plant #3
1–500		Machinery and Equipment
	1–501	Full Fashioned—45 gg.
	1–502	—51 gg.
	1–503	—60 gg.
	1–504	General Equipment Full-fashioned
	1–505	Seamless—Komet
	1–506	—120 Needle
	1–507	—220 Needle
	1–508	General Equipment Seamless
	1–509	Boarding Equipment
	1–510	Finishing Equipment
	1–511	Office Equipment
	1–512	Automobiles
1–700		Reserves for Depreciation
	1–701	Full Fashioned—45 gg.
	1–702	—51 gg.
	1–703	—60 gg.
	1–704	General Equipment Full-fashioned
	1–705	Seamless—Komet
	1–706	—120 Needle
	1–707	—220 Needle
	1–708	General Equipment Seamless
	1–709	Boarding Equipment
	1–710	Finishing Equipment
	1–711	Office Equipment
	1–712	Automobiles

Account Number	Sub-Account Number	Account
Other Assets		
1–800		Prepaid and Deferred Charges
	1–801	Prepaid Interest
	1–802	" Insurance Fire
	1–803	" " Compensation
	1–804	" " Health
	1–805	" Advertising
	1–806	" Expense
	1–807	Deferred Style Changing
Current Liabilities		
2–001		Accounts Payable—Trade
2–002		Notes Payable
2–100		Accrued Wages and Salaries
2–200		Accrued Expenses
	2–201	Commissions
	2–202	Corporate Taxes
	2–203	Expenses
	2–204	Real Estate Taxes
	2–205	Legal and Professional
	2–206	Royalties
	2–207	Pensions
	2–208	Soc. Security Taxes—Employer
	2–209	—Employee
	2–210	Unemployment Taxes
	2–211	Withholding Taxes
2–300		Accrued Federal and State Taxes
Other Liabilities		
2–501		Capital Stock
2–601		Earned Surplus
3–000		Sales Full-fashioned
	3–001	Sales—Regulars
	3–002	—Irregulars
	3–003	—Thirds and Fourths
	3–004	—Gray Goods
3–010		Sales—Seamless
	3–011	—Regulars
	3–012	—Seconds, Thirds
3–100		Sales Returns—Full-fashioned
	3–101	—Regulars
	3–102	—Irregulars
	3–103	—Thirds and Fourths
	3–104	—Gray Goods
3–110		Sales Returns—Seamless
	3–111	—Regulars
	3–112	—Seconds and Thirds
3–200		Cost of Sales—Full-fashioned
	3–201	—Regulars

Account Number	Sub-Account Number	Account
	3–202	—Irregulars
	3–203	—Thirds and Fourths
	3–204	—Gray Goods
3–210		Cost of Sales—Seamless
	3–211	—Regulars
	3–212	—Seconds and Thirds
3–251		Discount on Sales—Full-fashioned
3–252		—Seamless
Variances		
3–300		Material Price—Variance
	3–301	—Full-fashioned
	3–302	—Seamless
3–310		Material Usage
	3–311	—Full-fashioned
	3–312	—Seamless
3–320		Loss on Irregulars
	3–321	—Full-fashioned
	3–322	—Seamless
3–350		Outside Operations
	3–351	—Full-fashioned
	3–352	—Seamless
3–400		Direct Labor
	3–401	Knitting—Full-fashioned
	3–402	—Seamless
	3–403	Looping
	3–404	Seaming
	3–405	Examining and Mending
	3–406	Dyehouse
	3–407	Boarding
	3–408	Finishing
3–430		Overhead Absorbed
	3–431	Knitting—Full-fashioned
	3–432	—Seamless
	3–433	—Depreciation Full-fashioned
	3–434	—Seamless
	3–435	Looping
	3–436	Seaming
	3–437	Examining and Mending
	3–438	Dyehouse
	3–439	Boarding
	3–440	Finishing
	3–441	Building Expense
	3–442	General Manufacturing
Selling and Administration		
3–501		Shipping Department Expense
3–600		Sales Office Expense
	3–601	Salaries—Executive

Account Number	Sub-Account Number	Account
	3–602	—Clerical
	3–603	—Salesmen
	3–606	Insurance
	3–608	Payroll Taxes
	3–609	Office Supplies
	3–610	Postage
	3–611	Telephone
	3–612	Repairs
	3–613	Office Expense
	3–615	Travel and Entertainment
	3–616	Depreciation
	3–617	Light and Heat
3–700		Branch Office Expense
		(Sub-accounts have endings same as in 3–600)
4–600		Selling Expense—Salesmen
	4–603	Salaries—Salesmen
	4–604	Commissions
	4–606	Insurance
	4–608	Payroll Taxes
	4–615	Travel and Entertainment
	4–618	Sample Expense
	4–619	Miscellaneous Expense
4–700		Advertising
	4–721	Trade Paper Advertising
	4–722	Cooperative "
	4–723	National "
	4–724	Agency Fees
	4–725	Newspaper Mats
	4–726	Gratis Merchandise
4–800		Administration
	4–801	Salaries—Executive
	4–802	—Clerical
	4–805	Corporate Taxes
	4–806	Insurance
	4–808	Payroll Taxes
	4–809	Office Supplies
	4–810	Postage
	4–811	Telephone
	4–812	Repairs
	4–813	Office Expense
	4–815	Travel Expense
	4–816	Depreciation
	4–817	Light and Heat
	4–818	Collection Expense
	4–819	Legal Expenses
	4–820	Bad Debts
	4–821	Donations

Account Number	Sub-Account Number	Account
4–900		Other Income
	4–904	Interest Received
	4–905	Purchase Discount
	4–906	Profit on Sale of Assets
	4–907	Sale of Waste
	4–908	Miscellaneous Sales
5–000		Other Expenses
	5–004	Interest on Notes
	5–009	Prior years expense

FACTORY LEDGER

90–000		Operating and Processing Materials
	90–001	Unfinished Nylon Yarn
	90–002	Dyestuffs and Chemicals
	90–003	Needles—Full-fashioned
	90–004	—Seamless
	90–005	Fuel
	90–006	Cartons
	90–007	Returnable Bobbins
90–100		Yarn Inventory
	90–101	Yarn—Nylon
	90–102	—Cotton
	90–103	—Rayon
	90–104	—Blends
90–200		Work in Process
	90–201	Work in Process—Full-fashioned
	90–202	—Seamless
90–300		Finished Stock
	90–301	Finished Stock—Full-fashioned
	90–302	—Seamless
91–000		General Ledger Control

Departmental Operating Expenses
Full Fashioned Knitting Dept.

Direct Labor		
	48–010	Knitting
	48–700	Unearned Wages
	48–710	Cost of Living Bonus
Indirect Labor		
	48–801	Foreman and Supervision
	48–802	Clerical
	48–808	Machine Fixers
	48–809	Machine Cleaners
	48–810	Utility Labor
	48–811	Examiners
	48–812	Overtime Premiums
Expenses		
	48–901	Repairs

Account Number	Sub-Account Number	Account
	48–902	Supplies
	48–903	Needles
	48–904	Sinkers and Points
	48–927	Depreciation
	48–999	Closing Account
Direct Labor		
	49–010	Ribbing
	49–020	Top Pulling
	49–030	Knitting
	49–040	Trimming
	49–050	Machine Fixers
	49–700	Unearned Wages
	49–710	Shift Bonus
Indirect Labor		
	49–801	Foreman and Supervision
	49–802	Clerical
	49–810	Utility Labor
Expense		
	49–901	Repairs
	49–902	Supplies
	49–903	Needles
	49–904	Sinkers
	49–927	Depreciation
	49–999	Closing Account

Other Departments

The prefixes for other departments change but the sub-account numbers are the same as above.

The list of departments could be as follows:

48	Knitting Full-fashioned
49	Seamless Knitting
50	Looping and Seaming
51	Examining and Mending
53	Dyehouse
54	Boarding
55	Finishing
56	Shipping
57	Building Expense
58	Power Expense
59	General Manufacturing
60	Auto Expense

The Factory Ledger is controlled by a controlling account "No. 1–200 Factory Ledger Control" in the General Ledger. The Factory Ledger has a similar balancing account "No. 91–000 General Ledger Control." Any transfer between the two ledgers will pass

through these control accounts. As will be seen from a subsequent paragraph, the balances remaining in the Factory Ledger after each month's transactions represent inventories. Therefore, the control account in the General Ledger appears with the current assets as "Inventory" for the balance sheet.

Accounts in the General Ledger are not closed monthly but are carried cumulatively for the year and finally closed after the final audit at the end of the fiscal or calendar year. The monthly statements are taken from the accounts as shown after the monthly entries.

To understand the working of these accounts, let us follow each step of accounting for materials, labor, etc.

Material Accounting

Purchases of materials are entered to inventories at standard cost. Variances are written off to variance accounts. If unfinished yarn is purchased, the entry would be as follows:

		Dr.	Cr.
90–001	Unfinished Nylon Yarn	6,000.00	
3–301	Material Price Variance	250.00	
2–001	Accounts Payable		6,250.00

For 1,000 lbs. 15 Den. Nylon @ 6.25/lb. actual
@ 6.00/lb. standard

In most cases this yarn is sent to a throwster for twisting and sizing. After receiving this invoice from the throwster the entry would be:

		Dr.	Cr.
90–101	Yarn—Nylon	8,000.00	
3–351	Outside Operation Var.	50.00	
90–001	Unfinished Nylon Yarn		6,000.00
2–001	Accounts Payable		2,050.00

For 1,000 lbs. 15 Den. Nylon @ 6.00/lb. standard
Throwing charge @ 2.05/lb. actual
@ 2.00/lb. standard

The purchases of other finished yarns are entered to the inventory accounts at standard cost. These entries are made once a month when the purchase journal is summarized. Many transactions are summarized, and one calculation is made for each step.

As the yarn is required in the knitting departments, the material is issued on material requisitions. Each month an inventory is taken of yarn in the productive departments. The yarn on the

machines is estimated. From these calculations the material actually used is determined. The standard quantity that should be used is the production in dozens by styles times the standard weights on the respective standard cost sheets. For a typical entry recording this material used, the following calculation will suffice:

	Actual Weight Used	Standard Weight Should Use	Standard Price	Value Actual Used	Value of Standard Weight
15 Den. 10 Turn Nylon	600	580	$8.00	$4,800.00	$4,640.00
40 Den. 10 " "	205	200	3.40	697.00	680.00
50 Den. 10 " "	750	725	3.15	2,362.50	2,283.75
80/2 C.P.M. Cotton	20	21	1.50	30.00	31.50
				7,889.50	7,635.25

Entry

	Dr.	Cr.
90–201 Work in Process—Full Fashioned	7,635.25	
3,311 Material Usage Variance	254.25	
90–101 Yarn—Nylon		7,859.50
90–102 Yarn—Cotton		30.00

Labor Accounting

The payroll, when paid weekly, is charged to account "No. 2–100 Accrued Wages and Salaries." At the end of the month or accounting period, a distribution of the payroll is made crediting account "No. 2–100 Accrued Wages and Salaries" and charging departmental direct labor accounts and indirect labor to the respective departmental expenses or administrative or selling expenses. A sample distribution would appear as follows:

4–802	Administrative—Clerical Salaries	8,526.50
48–010	Direct Labor—Knitting	80,205.12
48–700	" " Unearned Wages	650.00
48–710	" " Cost of Living Bonus	4,011.02
48–801	Indirect Labor—Foreman & Superv.	3,600.00
48–802	" " Clerical	210.00
48–808	" " Machine Cleaners	2,875.46
48–810	" " Utility Labor	152.05
48–811	" " Examiners	425.15
48–812	" " Overtime Premium	762.20
49–030	Direct Labor—Seamless Knitting	32,650.15
49–040	" " " Trimming	1,262.78
49–050	" " " Machine Fix	1,575.00
49–700	" " " Unearned Wages	125.00
49–710	" " " Shift Bonus	679.80
49–801	Indirect Labor—Foreman & Superv.	1,425.60
49–802	" " Clerical	160.00
	etc. for other departments	
2–100	Accrued Wages and Salaries	Cr. for total

It will be noted that distribution is rather detailed. These accounts can be carried on loose-leaf cards used in a simple posting adding machine. From these detailed accounts are prepared monthly departmental operating statements which, in this example, are called "Budget Reports." After the "Budget Reports" are prepared, these labor accounts are closed out theoretically to the "3–430 Overhead Variances." The closing entry for Labor on the above payroll period would be made as follows:

		Dr.	Cr.
3–401	Direct Labor Variance—Full Fash.	84,866.14	
3–431	Overhead " " "	8,024.86	
48–999	Closing Account " "		92,891.00
3–402	Direct Labor Variance—Knit Seamless	36,292.73	
3–432	Overhead " " "	1,585.60	
49–999	Closing Account " "		37,878.33
	(etc. for other departments)		

It will be noticed that this closing does not actually close out each individual account. There is one posting to each departmental closing account, for example "48–999 Closing Account." In this way accumulated figures are compiled for each account, whereas the arithmetical sum of each department is "0."

The Labor Variance and Overhead Variance accounts are credited with the standard cost of the production within each department. This is calculated by listing the production in each department by style or operations of similar rates. The rates on the standard cost sheets are applied to this production and extended. This standard value is charged to Work in Process.

Overhead Accounting

Purchases are charged direct to the departmental, selling, and administrative expenses monthly when the Purchase Journal is distributed.

After the "Budget Reports" are prepared, these expense accounts are closed out to "3–430 Overhead Variances" in a manner similar to that for the Labor Accounts.

The "Overhead Variances" are credited with the standard overhead absorbed within each department. This is calculated by extending the production by the standard overhead units, and this product is extended by the standard overhead rate per unit.

This entry will

Dr. Work in Process
Cr. Overhead Variances

Work in Process to Finished Stock

After the hosiery is finished, there is a final inspection through which all hosiery must pass. This last operation is the basis for transferring the finished product from "work in process" to "finished stock." Since all the costs entering "work in process" have been at "standard," the calculation of the credit to this account is comparatively simple. The total dozens finished times the "standard cost finished" per dozen (from standard cost sheets) equals the value of the credit to "work in process."

The debit is to "finished stock" at the value used for cost of sales. This is the "cost finished" plus the "loss on irregulars," which is added to the cost of first quality only. (See Standard Cost Sheet, Exhibit A.)

Assuming a finished production of style No. 1600 as shown in the following calculation, the entry would be:

			Dr.	Cr.
90–301 Finished Stock—Full Fashioned			8,133.26	
735 doz. Firsts	@ $9.016/doz.	$6,626.76		
160 " Irregulars	@ 6.50 "	1,040.00		
75 " Seconds	@ 5.50 "	412.50		
18 " Thirds	@ 3.00 "	54.00		
12 " Rags	@ 0 "	0.		
		$8,133.26		
3–321 Loss on Irregulars Variance Difference between cost and what the standard inventory value amounts to.			48.74	
90–201 Work in Process—Full Fashioned 1000 doz. finished @ $8.182/doz.				8,182.00

Finished Stock to Cost of Sales

Finished stock is credited with the standard cost of hosiery sold, and Cost of Sales is debited for this same value.

The above procedures show the various entries used to record inventories from purchases to cost of sales. Any transactions varying from the main entries will require variations in the entries. The general over-all plan of accounts must be kept in mind when recording these extra transactions.

(*a*) *Balance Sheet.* A Balance Sheet is prepared in the conventional form. The accounts in the General Ledger appear in the same order as listed on the Balance Sheet, which facilitates this preparation.

(*b*) *Profit and Loss.* A Profit and Loss Statement appears in Exhibit B. This can be prepared readily from the accounts in the General Ledger. This report is a summary which reflects the results of the reports designated "c," "d," "e," "f." There can be variations of this statement depending on the requirements of management. Another form of this statement is to show the profit and loss comparing "actual" with "forecast" or "budgeted" sales and profit. This forecast is possible from the budget of sales, expenses, etc.

(*c*) *Budget Report-Departmental.* This report or a similar one is used to control departmental expenses by giving the departmental head his performance for the month. This report is shown in Exhibit D. The department receives credit for the full amount of fixed expenses. On variable expenses, credit is given for the budgeted allowance for the level of operation. On the report illustrated, this is the value of production converted to machine hours. This times the allowance for each item of expense gives the budgeted allowance for each item. The actual expenses are posted to the actual column, and variances are calculated.

The performance of Direct Labor is also shown on this same sheet instead of preparing on an extra sheet. It will be noted that there are no redistributed expenses, such as Power, Building Expense, and General Factory Expense. The only items appearing are those over which the department head has some control (with the exception of depreciation on his equipment).

(*d*) *Material Usage.* It is essential that a careful measure of material usage efficiency be provided. Failure to do so may encourage waste, theft, and spoiled work. A suggested report is shown as follows:

Material Usage Report

For the month of ________

	Current Month		Year to Date	
Kind of Yarn	Standard Should Use	Variance	Standard Should Use	Variance

(All quantities are in pounds)

(*e*) *Selling and Administrative Expenses.* An analysis of Selling and Administrative Expenses is necessary to control this phase of the business. A suggested form would be

SELLING AND ADMINISTRATIVE EXPENSES

Sales Budgeted__________ Month ending____________________
Sales Actual____________

	BUDGET					
Name of Account	Fixed	Variable Allowance	Amount	Total Budget	Actual Expense	Variance

(*f*) *Quality Report.* A report of the inspection for quality is very important, because if quality suffers it can mean financial loss. Therefore, this item should be constantly before management. A suggested form is as follows:

QUALITY REPORT Month of __________

Style No.	Doz. Paired	Stand. % Regulars	Regulars Doz. %	Irregulars Doz. %	Seconds Doz. %	Thirds Doz. %	Rags Doz. %

BOOKKEEPING METHODS

The books used for the above described methods should be as follows:

General Ledger. This can be a loose-leaf book which contains the main balance sheet accounts and main profit and loss accounts. The detailed breakdown of these accounts can be kept on ledger cards used for machine posting. This will give unlimited details for analysis purposes.

Factory Ledger. In this particular setup, because of the detailed breakdown of accounts for departmental reports, the factory accounts are kept on ledger cards posted by machine.

Purchase Journal. All purchases are entered in the purchase journal and, at the end of each month, a summary of the charges is posted to the various detailed ledger cards. A unique method of recording purchases and making the summary is shown in Exhibit E.

Through this method, by one writing, a journal is prepared, voucher checks are prepared in duplicate, and posting or distribution slips are prepared. The voucher checks serve as the detailed ledger for accounts payable. When paid, the check is completed for actual cash paid out, at which writing the Cash Paid Journal is prepared. The posting or distribution slips are filed by account number in a current month file. At the end of the month the slips

THE NOLDE & HORST CO
READING PA

PURCHASE JOURNAL

DATE OF INVOICE	PURCHASE ORDER NO	DESCRIPTION	PRICE	UNITS	AMOUNT OF INVOICE	DISCOUNT	NET AMOUNT	ACCOUNT NO	VENDOR
2/5	6481	LIEBERKNECHT INC-REPAIRS 2% 10 DAYS			1048 62	20 97	1027 65	48 901	KARL LIEBERKNECHT INC READING PENNSYLVANIA

THE NOLDE & HORST COMPANY
MANUFACTURERS OF HOSIERY
READING PA

THIS CHECK IN PAYMENT OF ITEMS LISTED BELOW

DATE OF INVOICE	PURCHASE ORDER NO	DESCRIPTION	PRICE	UNITS	AMOUNT OF INVOICE	DISCOUNT	NET AMOUNT	ACCOUNT NO
2/5	6481	LIEBERKNECHT INC-REPAIRS 2% 10 DAYS			1048 62	20 97	1027 65	48 901

THE NOLDE & HORST COMPANY
MANUFACTURERS OF HOSIERY
READING PA

60-46
313

PAY

CHECK NO	DATE OF CHECK	AMOUNT OF CHECK

TO THE ORDER OF KARL LIEBERKNECHT INC
READING PENNSYLVANIA

THE NOLDE & HORST COMPANY
MANUFACTURERS OF HOSIERY
READING PA

THIS CHECK IN PAYMENT OF ITEMS LISTED BELOW

DATE OF INVOICE	PURCHASE ORDER NO	DESCRIPTION	PRICE	UNITS	AMOUNT OF INVOICE	DISCOUNT	NET AMOUNT	ACCOUNT NO
2/5	6481	LIEBERKNECHT INC-REPAIRS 2% 10 DAYS			1048 62	20 97	1027 65	48 901

THE NOLDE & HORST COMPANY
MANUFACTURERS OF HOSIERY
READING PA

60-46
313

PAY

CHECK NO	DATE OF CHECK	AMOUNT OF CHECK

TO THE ORDER OF KARL LIEBERKNECHT INC
READING PENNSYLVANIA

THE NOLDE & HORST COMPANY
MANUFACTURERS OF HOSIERY
READING PA

THIS CHECK IN PAYMENT OF ITEMS LISTED BELOW

DATE OF INVOICE	PURCHASE ORDER NO	DESCRIPTION	PRICE	UNITS	AMOUNT OF INVOICE	DISCOUNT	NET AMOUNT	ACCOUNT NO
2/5	6481	LIEBERKNECHT INC-REPAIRS 2% 10 DAYS			1048 62	20 97	1027 65	48 901

To BERKS COUNTY TRUST CO
READING PENNA

EXHIBIT E.

are added on an adding machine, the tapes of which are stapled to the slips for each account number. These totals are posted, and the slips are filed by accounts, together with previous months distributions, and serve as a ready file for analysis purposes.

Cash Received. This should be the conventional Cash Book. If there are not many items daily, the receipts can be listed in detail by customers. In a company having a large daily volume, the entry in the cash receipts book can be made in total only. The details are then listed on a separate sheet for posting information to the accounts receivable detailed cards. This would be posted mechanically.

Cash Paid. This should be a register of checks issued, showing payee, and should provide columns for cash, discounts, and accounts to be charged. When used in connection with the purchase journal method described above, the sheets would be produced mechanically with the completion of the checks.

Sales Book and Accounts Receivable. One method of using a sales book is to take a tape of daily invoices and enter the total daily sales in the book. The sales analysis to the various sales accounts can also be made from the invoices and entered daily. In some concerns the posting copy of the sales invoice is inserted in a binder or loose-leaf file and serves as the Accounts Receivable Ledger. When the invoice is paid, it is removed from the file. The unpaid invoices are then the accounts receivable outstanding.

In many companies postings are made mechanically on accounts receivable ledger cards. The advantage of these cards is that the record for each customer is complete at one place, and there is less chance of losing items making up the accounts receivable accounts.

Journal. A journal is necessary to provide for entries not in the other books of original entry. For monthly statements, a number of entries are necessary. One method eliminates a bound journal and uses a journal voucher, to which can be attached the work sheets or supporting data. These are standardized, and the outlined entries are typed in advance to eliminate extra writing. These journal vouchers are assembled for each month and fastened in a folder for filing, one folder for each month.

ACCOUNTING FOR THE HOTEL INDUSTRY

By

Paul J. Hagen *

Brief Description of Business

Hotels can be classified under three principal headings, namely, transient, residential, and resort. The principal business of a transient hotel is the renting of rooms and suites by the day to the traveling public, and the sale of food and beverages in its restaurants and bars. A residential hotel primarily rents apartment of one, two, or more rooms, either furnished or unfurnished, to permanent guests or tenants by the month or on annual leases. Most residential hotels operate a restaurant, and many have a bar. However, the volume of business in such restaurants is usually small, and they generally operate at a loss, being primarily intended as an accommodation for guests. There is considerable overlapping in the functions of these two types of hotels. Nearly all transient hotels have a number of permanent guests; and conversely, most residental hotels are glad to bolster their income by renting their vacant apartments by the day or week.

Most transient hotels, and some residential ones, derive considerable additional income from the rental of stores and office space. Income is also derived from the operation of cigar and newsstands, laundries, swimming pools and other miscellaneous activities; and from commissions paid to the hotel by outside concessionaires such as laundries, valets, garages, and telegraph companies, who render services to the hotel's guests. The actual net profit from these ancillary activities is usually small, and they are engaged in primarily as an accommodation to guests.

Resort hotels are usually open for only a few months in the year; the really busy period seldom lasts more than six weeks or so. However, certain resort houses are so favorably located as to at-

* Vice President and Controller of Roger Smith Hotels Corporation.

tract both a summer and winter clientele, and thus have two seasons. These hotels often remain partly open all year, on the theory that the operating loss from off-season operation is less, or at least no greater, than the cost of opening and closing the house twice a year.

Resort hotels sell most of their accommodations on the American Plan—that is, room and regular meals at an all-inclusive rate, by the day, week, or season. Additional income may be derived from concessionaïres, such as postcard stands and souvenir shops, often by way of a percentage of sales or profits. Resort hotels customarily provide entertainment and recreational facilities for their patrons, but any additional charges levied for the use of these facilities rarely suffice to cover the cost of operating them.

Except in its restaurants and bars, a hotel sells service rather than a tangible commodity. Consequently, no inventories other than food and beverages and a relatively small quantity of operating supplies need be carried. Food and beverage inventories, being highly perishable, are kept at a minimum, and have a high rate of turnover. Sales are either for cash, or on very short-term credit, monthly rents being payable in advance, and other charges weekly. Consequently, working capital requirements are small, and in the case of a hotel which is at least earning its fixed charges can be largely financed out of ordinary trade credit. On the other hand, investment in fixed assets is much larger than in most commercial or industrial enterprises. This will amount to at least two or three times annual gross revenues. Consequently, fixed charges such as taxes, interest, and depreciation generally consume from 20 to 25 per cent of the total gross income.

The largest items of operating expense are payrolls and cost of food and beverages sold. Payrolls usually amount to about 30 per cent of total revenues; and cost of sales (which includes only the raw material cost), varies from 35 to 45 per cent of restaurant sales. Other major items of expense are for repairs and maintenance, and for heat, light, and power. Total operating expense will run from 70 to 75 per cent of income, leaving 25 to 30 per cent for fixed charges and profit on the equity.

Many hotels are owned outright by their operators, while others are leased. The lease may be at a fixed rental, or on a percentage of gross or net income, with a fixed minimum. Frequently the lessee

is required also to pay the real estate taxes and fire insurance premiums. Very often, the lessee owns the furniture and equipment. Another type of operation which has become rather common in recent years involves a management company, which operates the hotel for the account and risk of the owner, receiving a fee for its services, which may be fixed in amount, or more commonly, is a percentage of gross or net income. This type of operation is especially common in cases where hotels have been taken over by financial institutions, consequent upon a default on the mortgages. This condition has been prevalent in the last decade.

Theory of Accounts

The modern hotel operator seeks the following information from his accounting system:

1. The "departmental profit" (which is roughly equivalent to manufacturing profit in an industrial establishment) derived from each department operated by the hotel
2. The amount of income derived from sources other than the hotel's own operations
3. The amount of general and overhead expenses
4. The amount of fixed charges, called capital expenses, and the net operating profit which remains after deducting it from gross operating profit
5. The final net profit, which is net operating profit, adjusted for profit and loss items, corporate taxes, and other charges and credits not connected with operations.

Most hotels, especially the large ones, keep their books in accordance with the Uniform System of Accounts for Hotels, sponsored by the American Hotel Association. The form of operating statement prescribed by this system is designed to meet the foregoing requirements.

Departmental Profit

This profit is arrived at by crediting each department with the revenue properly assignable thereto, and charging it only with its direct expenses, without any allocation of general expenses or fixed charges. The uniform system recommended does not provide for such allocation. Although some hotels have made attempts in this direction, the majority of hotel executives and accountants agree that no useful practical purpose is served thereby. Given a particular hotel, general expenses and fixed charges bear little relationship to the volume of business, being governed principally by the size

and type of hotel, by the financial setup, and to some extent by the general policies of the management. They are much more easily controlled if they appear in one place in the statements, instead of being subdivided on a necessarily arbitrary basis. For somewhat similar reasons, most attempts to apply cost accounting methods to hotel operations have either been failures or at best, of purely theoretical interest.

In lieu of cost accounting, the progressive hotel operator controls his operations by the use of statistics and ratios. The basic unit of sale in the rooms department is the room/day; and in the restaurant, the meal or "cover," as it is usually called. Most hotels keep a record of the number of guests arriving and departing each day, the number of guests (house count), and the number of rooms occupied each day (room count). The two most important sales statistics which the manager wants are the occupancy percentage, in relation to the total number of available rooms, and the average revenue per rented room. In the restaurant he is primarily interested in the number of covers and the average revenue per cover, classified by meals and as between the several dining rooms; and in the cost of sales. Many of the more progressive hotels keep statistical records with respect to many expense items, such as the number of pieces of laundry and the consumption of electricity, gas, fuel, and water. By the intelligent use of such statistical data, it is possible to exercise effective control over the efficiency of operations.

Other Income

Included herein are rentals of offices and inside stores, concessions, commissions, and miscellaneous income received by the hotel from sources other than its own operations. Interest and cash discounts, which are relatively small in amount, are also included hereunder. On the other hand, rentals from ground floor stores with a street frontage are excluded (since such rentals depend primarily upon the location of the hotel, rather than on its size and character) in order to avoid distorted comparisons between operating results of otherwise similar hotels. Income from such rentals is listed as a separate item, and is added to House Profit on the profit and loss statement, the total being Gross Operating Profit.

General Overhead Expenses

Under this caption, in the standard form of operating statement, are grouped the general and administrative expenses of the hotel, not chargeable to any particular department; the cost of advertising and business promotion; heat, light, power and refrigeration; and the cost of general repairs and maintenance.

Capital Expenses

These comprise real estate taxes, insurance on building and contents, rent, interest, and depreciation. In other words, the expenses incident to the ownership of the property or leasehold, and the protection of the equity therein, as distinguished from those consequent upon operations. Sometimes corporate expenses and taxes are also included under this caption, although it is deemed better practice to deduct these from Net Operating Profit.

Accounts Required

The operating accounts of a hotel can be broadly classified under four general headings, thus:

1. Departmental accounts, controlling the operation of the various revenue-producing departments
2. Other income, reflecting gross income from rentals and other sources, not the result of the hotel's own operations
3. Deductions from income, comprising:
   a. General and administrative expense
   b. Advertising and business promotion
   c. Heat, light, power, and refrigeration
   d. Repairs and maintenance
4. Capital expenses, covering taxes, rent, insurance, interest, and depreciation

Departmental Accounts

It is necessary to provide a control account for each department, with suitable subaccounts breaking down the income and expense to the desired degree. Every hotel will require at least three such accounts, namely, rooms, food and beverages (to cover restaurant operations), and telephone. Other control accounts will usually be kept for the cigar and newsstand, laundry, and such other departments as may be operated by the hotel.

The departments are credited with the revenue properly assignable to them, and charged only with the direct expenses incurred, without any allocation of overhead. The income of each depart-

ment may be further subdivided under suitable headings, if desired. Thus it is customary to classify room revenue at least as between transient and permanent rentals.

Among the expenses common to several, if not all of the departments, are the following: cost of sales (in merchandising departments), departmental salaries and wages, employees' meals, uniforms, printing and stationery, cleaning supplies and expense, laundry, linen, china, glass, and silver, and guests' supplies (comprising items furnished free to guests, such as soap and writing paper in rooms, or toothpicks and after-dinner mints in the restaurants).

The system of accounts must make provision for charging the expenses under these and many other headings to the proper departments.

Other Income

The accounts generally required under this heading are Store Rents, Other Rents and Concessions, Commissions, Sundry Income, Interest Earned, and Cash Discounts.

General and Administrative Expenses

This account is charged with the usual payrolls and expenses concerned with the administration of the hotel as a whole.

Advertising and Business Promotion

This account includes all payrolls and expenses chargeable to promotional activities. The account is usually broken down as between different types of advertising, for example, newspapers, roadside signs, and broadcasting. Most hotel advertising is general in its nature, and it is not practicable to allocate it to any particular department. Sometimes, however, a hotel will conduct a special campaign concerning a specific department, in which case the amount spent would be charged separately in the accounts. Nevertheless, on the operating statement it will be shown under the same general heading.

Heat, Light, Power, and Refrigeration

Included in this group are all expenses connected with the production or distribution of these services. If electricity is submetered and charged to guests the revenues from such sales are credited to

this department, being deducted from its total expenses for statement purposes.

Repairs and Maintenance

This category embraces all labor and materials, and the cost of work done under contract, in connection with the repair and upkeep of the physical plant. The account is usually segregated as between Salaries and Wages and Supplies, Materials, and Contracts; each of these may be further classified according to the nature of the work, for example, repairs to furniture, painting and decorating, plumbing and heating, carpentry, and electrical work.

Capital Expenses

Under this general heading are grouped all those expenses which depend solely or principally on the size and value of the physical plant and on the capital structure, and which are independent of the results and methods of operation, such as real estate taxes, building insurance, depreciation, and amortization.

Account Classification

It is apparent that the hotel business is a complex one, requiring a large number of accounts for proper control although the uniform system recommended is widely followed, few hotels have adopted any system of account classification or numbering. It will be evident that such a code would be very helpful, and may result in a substantial reduction of the clerical work involved in bookkeeping. The numbering system in use in one hotel chain may be briefly described as follows:

The accounts are first classified in six major groups, as between assets, liabilities, net worth accounts, income, operating expenses, and capital expenses. These groups are numbered from 1 to 6. Each group is then divided into subgroups, numbered from 0 to 9. Thus, under the general group of assets we have the subgroups of current assets, prepaid expenses, fixed assets, etc. Each subgroup consists of the necessary number of controlling accounts, numbered from 00 to 99. Therefore, the number of every general ledger or control account will consist of four digits, the first two indicating the group and subgroup, and the last two the account or department. In designating control accounts, the same number, combined

with the proper subgroup number, is used for all accounts connected with the same department or activity. For example, for the food department, we have:

40–05 Net Sales
50–05 Cost of Sales
51–05 Salaries and Wages
52–05 Other Departmental Expenses

The following is a complete list of the groups and subgroups of the nominal accounts:

Group 4. Income
  Subgroup 40—Sales (including receipts from services in all operated departments)
  Subgroup 41—Other income
Group 5. Operating Expenses
  Subgroup 50—Cost of Sales
  Subgroup 51—Salaries and Wages
  Subgroup 52—Departmental Expenses
  Subgroup 53—General Expenses
  Subgroup 54—Repairs and Maintenance
Group 6. Capital and Corporate Expenses
  Subgroup 60—Capital Expenses
  Subgroup 61—Corporate Expenses and Taxes

Space does not permit the listing of all control accounts. The following is a list of the more important ones which will be found in nearly all hotels. To the department number must be prefixed the proper subgroup number to competely identify the account.

00—Rooms
05—Food
10—Beverages
15—Food and Beverages
20—Cigar and Newsstand
30—Telephone
41—Office
70—Advertising
80—Heat, Light, and Power
90—Repairs and Maintenance

Subsidiary accounts are numbered from 00 to 99.

Operating Statements

The operating statement of a hotel is designed to furnish the information called for by the uniform system. The statement, which is necessarily in summary form, is supported by schedules,

Profit and Loss Statement
Form A

Departments	Net Sales	Cost of Sales	Expenses: Salaries and Wages	Expenses: Other Expenses	Total Expenses	Departmental Profit
Rooms						
Other Operated Departments:						
Food and Beverages						
Cigar Stand						
Telephone						
Etc., etc.						
Total Other Operated Departments						
Total Operated Departments						
Other Income						
Total Income						
Deductions from Income:						
General and Administrative Expense						
Advertising and Business Promotion						
Heat, Light, Power, and Refrigeration						
Repairs and Maintenance						
Total Deductions from Income						
House Profit						
Store Rents						
Gross Operating Profit						
Capital Expenses:						
Real Estate Taxes						
Insurance on Building and Contents						
Rent						
Interest						
Depreciation and Expense Amortization						
Total Capital Expenses						
Net Operating Profit						
Profit and Loss, etc. (itemized)						
Net Profit						

reflecting in requisite detail the sales and expenses of each department, and the details of general and capital expenses.

Two forms of statement are in common use and are illustrated on the following pages. Form A furnishes rather more detail than Form B, and if the latter is used, additional schedules are required to reflect the total of all sales and income, of salaries and wages, and of other expenses. On the other hand, Form B is better adapted to the preparation of comparative statements and the presentation of operating ratios. Moreover, being more compact, it is rather easier to read.

Profit and Loss Statement

Form B

Departmental Profit, Rooms:		
Net Sales		$..........
Less Departmental Expenses:		
Salaries and Wages	$..........	
Other Expenses	....	....
Departmental Profit		$..........
Other Operated Departments:		
Food and Beverages	$..........	
Cigar and Newsstand	....	
Telephone	....	
Etc., etc.	....	....
Total Operated Departments		$..........
Other Income		....
Total Income		$..........
Deductions from Income:		
General and Administrative Expense..........	$..........	
Advertising and Business Promotion	....	
Heat, Light, and Power	....	
Repairs and Maintenance	....	....
House Profit		$..........
Add—Store Rents		....
Gross Operating Profit		$..........
Capital Expenses:		
Real Estate Taxes	$..........	
Insurance on Building and Contents	....	
Rent	....	
Interest	....	
Depreciation and Expense Amortization	....	....
Net Operating Profit		$..........
Profit and Loss Charges and Credits (Itemized)		....
Net Profit		$

Balance Sheet

A typical hotel balance sheet contains the following accounts:

Assets

Current Assets
- Cash on Hand
- Cash in Banks
- Accounts and Notes Receivable, less reserve for bad debts (Note 1)
- Inventories—Food
  - (Note 2) Beverages
  - Cigars and other merchandise
  - Operating Supplies

Prepaid Expenses
- Unexpired Insurance
- Stationery and Uniforms
- Prepaid Taxes and Licenses
- Other prepaid expenses, classified as desired

Fixed Assets
- Land
- Building, less Reserve for Depreciation
- Furniture, Fixtures, and Equipment less Reserve for Depreciation
- Linen, China, Glass, Silver, and Utensils (Note 3)

Deferred Charges
- Unamortized Financing Expense
- Leasehold
- Other deferred charges, classified as desired

Liabilities

Current Liabilities
- Notes Payable
- Accounts Payable
- Accrued Salaries and Wages
- Accrued Taxes
- Accrued Interest Payable
- Other Accrued Liabilities
- Guests' Credit Balances
- Other Current Liabilities

Funded Debt
- Mortgages Payable
- Bonds and Debentures Payable

Other Liabilities
- Trade Orders Outstanding (Note 4)
- Tenants' and other Security Deposits
- Unfunded noncurrent Liabilities, classified as desired
- Unearned Income

Operating Reserves
- Reserve for Repairs (Note 5)
- Reserve for Replacements (Note 6)
- Other Operating Reserves

Capital Stock

Surplus

Note 1—A hotel does not customarily receive notes but may accept them occasionally. Those on hand are generally included with the accounts receivable.

Note 2—Inventories of stores and supplies are relatively small, and are commonly valued at cost. Only direct material cost is taken into consideration, without any allowance for labor or work in process. Thus cooked food on hand at inventory time is valued only at the raw food cost.

Note 3—This group consists of a large number of items of generally small unit value, of relatively short life (two to at most three years in the case of linen) and subject to considerable shrinkage by way of losses and pilferage. Therefore, it is common practice to inventory them and list them in the balance sheet at actual value, as nearly as that can be determined, instead of subjecting them to a depreciation allowance. However, the method of treatment is far from uniform.

Note 4—Hotels often pay for part of their advertising by the issuance of trade orders or due bills, entitling the holder to the face value thereof in hotel services. This account represents the value of such orders issued and not yet redeemed.

Note 5—The cost of repairs in a hotel is a fairly heavy item of expense, averaging in the case of a transient hotel 7 or 8 per cent of room revenue. It is obviously desirable to make major repairs, such as painting and decorating, in quiet periods, when occupancies are relatively low. Many hotels equalize this expense by setting up each month a reserve equal to a predetermined percentage of the income for that month, and charging all actual expenditures against that reserve. Any balance in the Reserve account at the end of the fiscal year is then carried to Profit and Loss, or to the Repair Expense account. Sometimes a similar procedure is followed with respect to advertising or other large expenditures whose incidence is uneven, and the benefits of which are realized in some other month than that in which the expenditure is actually incurred.

Note 6—This reserve serves a similar purpose as the reserve for repairs. It covers the cost of replacing linen, china, glass, silver, and utensils, which are customarily purchased in relatively large quantities only a few times a year but which are continually wearing out or being lost.

Bookkeeping Methods

Hotel bookkeeping falls naturally under three principal headings namely, (1) front office, (2) "back-of-the-house," and (3) general bookkeeping.

Front Office Bookkeeping

This is concerned with the primary accounting for the bulk of the hotel's receipts and revenues, and the keeping of the accounts with guests. In the typical transient hotel, the major portion of the sales in most departments except rooms is for cash. Charges to guests' accounts, however, may and do originate in all departments; and all room sales, even if paid in advance are recorded as charge sales. It is therefore necessary to set up a system in each department to control its total sales and to provide for proper accounting for cash receipts as well as charge sales. Control is generally rather more difficult than in a mercantile or manufacturing establishment, because most of the departments sell service rather than a tangible commodity, but various methods of effective control are in use.

Room sales are controlled through comparison by the auditor's office of two or more independently prepared records. A room count sheet prepared by the night clerk lists occupied rooms and rates as shown by the room rack. The daily housekeeper's report is a similar list derived from the reports of the maids. These must agree with each other and with the transcript or daily trial balance.

Food and beverage sales require rigid control by a somewhat complex system. Fundamentally, this involves accounting for all waiters' checks issued through prenumbering, and a comparison of daily data taken from three sources: the cashier's restaurant cash sheets, the bookkeeper's record of cash received and charge sales, and the checker's sheets or the checking machine readings.

Sales of newsstand and other merchandising departments can be conveniently controlled by methods similar to those used by department and chain stores. Telephone sales can be compared with charges by the telephone company. Charges for services rendered by concessionaires can, of course, be easily verified against the concessionaires' invoices. Charges for laundry and other services operated by the hotel can sometimes be checked against particular

items of expense, but in many cases it is impossible to verify them completely.

It is highly important that guests' accounts be kept correctly posted and up to the minute at all times. A guest may decide to check out at any moment of the day or night, and his bill must be ready for him. Moreover, after he has left the hotel it is generally impossible to correct errors.

The accounts with guests are kept by the front office cashier. Whenever a charge is incurred in any department, a voucher is immediately sent to the front office and posted to the account. A record of the voucher, showing name, room number, and amount is also kept by the department, which record is included with the departmental report at the end of the day. The front office cashier handles all cash transactions on guests' accounts, which he enters on the front office cash sheet, and immediately posts to the accounts.

A distinctive feature of hotel front office accounting is the night audit. The night auditor checks the postings of all transactions in the guests' accounts during the preceding day. He then prepares the transcript, which may be briefly described as an analytical trial balance of the accounts. Using a line for each account, the auditor enters in the first column the balance of the preceding day; in succeeding columns, one for each department, he enters the charges posted to the account from those departments; these are followed by the credits, which are classified primarily as between cash and allowances; and in the last column is entered the balance at the end of the current day. All columns are then footed, and the totals cross-footed and proved. The totals of the several departmental columns are then compared with the total charges shown on the respective departmental control sheets; and the total of opening balances compared with the closing balances on the preceding day. In this way we can verify that all departmental charges have been posted and that the accounts have been properly balanced.

In most medium-sized and large hotels hand posting of guest accounts and the hand-written transcript have been supplanted by machine methods. However, the hand-written records are still in general use in small hotels; and in any case the same basic principles apply to machine methods.

Back-of-the-House Bookkeeping

This is concerned principally with the control of inventories and certain classes of expense, such as cost of sales and payroll. The extent to which such control is carried, by means of perpetual inventories and other devices found in other lines of business, depends on the size and type of the hotel and on the wishes of the management. The major difficulty which presents itself in these operations is that the items to be controlled generally consist of a large number of small units. Hence it is not generally feasible, on account of the expense involved, to carry unit control to the extent commonly found in other enterprises. The most that can be hoped for in the general case is to measure daily overall consumption of labor and materials, by classes, and to compare this by means of ratios and averages with the corresponding volume of business.

General Bookkeeping

This is concerned with keeping the general books of the hotel, with the preparation of financial reports, and with the supervision over the other two principal divisions, and over all cashiers. The head of the bookkeeping department bears the title of auditor or resident auditor.

The night auditor's transcript and all departmental reports are turned in every morning to the auditor's office. Here they are subjected to further scrutiny, the figures being checked against cash register and checking machine readings and other predetermined totals. In small houses this additional control may be exercised by the night auditor. From the audited reports a more or less detailed report of the previous day's business, with such statistics as may be desired, is prepared for the management. The cash receipts from all departments are generally summarized on some kind of a cash report or in a daily cash book, and only the final totals, properly classified, are entered in the general cash receipts books. In small houses, the departmental receipts may be carried directly to the general cash book. The transcript totals, representing all transactions affecting accounts receivable, are summarized on a monthly recapitulation sheet, and the grand totals posted to the proper general ledger accounts at the end of the month.

It will thus be apparent that cash revenues will be posted to the general ledger from the general cash receipts book, and charge

revenues, as well as all other transactions affecting accounts receivable, from the transcript recapitulation. Cash receipts and disbursements affecting guests' accounts will appear in both records, but will, of course, be posted only once. Frequently, both cash and charge revenues are entered only in total in the cash receipts book and in the transcript recapitulation. They are then entered, analytically, in a record of revenues, and from there posted to the general ledger.

Other books of original entry used present no special peculiarities. The voucher system is almost universally used for accounts payable. The general journal is frequently divided into two parts: an operating journal, in which are recorded the recurring monthly entries, and the general journal, now used solely for unusual, nonrecurring entries. Under this system, the operating journal is arranged with twenty-four money columns, two for each month. The description of the entry is written in only at the beginning of the year, and all that is necessary thereafter is to enter in the proper columns the figures for each month.

The general ledger is usually in columnar form, providing for the subsidiary account distribution on the same page with the controlling account.

Some or all of the following subsidiary records will be found in most hotels.

The City Ledger is an ordinary accounts receivable ledger, in which are carried the accounts of patrons of the hotel not presently occupying rooms.

The Check Register contains the pertinent details with respect to all checks received on account or cashed by the hotel. A hotel receives many thousands of such checks annually, often from comparative strangers; and when a check "bounces," this register may be very valuable.

The Equipment Register records the details as to cost, dates of acquisition, and depreciation of furniture, fixtures, and equipment.

The Insurance Register is the usual record of all insurance policies, containing columns for the proration of the monthly expense write-off.

Inventories of stores and supplies are taken at least once a month, and recorded in this book, which is usually in columnar form, with one set of columns for each month. This arrangement

reduces the labor of inventory taking, and facilitates comparisons from month to month.

Payroll Records are more complex than those required in most other lines of business. Both Federal and state social security laws require the inclusion in the tax base, not only of cash wages, but also of the value of rooms and meals furnished to employees. In addition, the laws of many states require the inclusion of tips received by waiters, bellboys and other service employees which must be estimated on a reasonable basis.

ACCOUNTING FOR HOUSEHOLD APPLIANCE DEALERS

By
RUDOLPH E. LINDQUIST *

BRIEF DESCRIPTION OF BUSINESS

The household appliance dealer is engaged principally in the retail selling of mechanical home equipment which uses electric or gas energy. While a large number of appliances are sold through such agencies as department stores, hardware stores, and furniture stores, an ever increasing number of retail stores that specialize in this type of merchandise have been established in recent years.

The sales objective of the average appliance dealer is directed first towards the selling of new major appliances, such as refrigerators, washing machines, ranges, radios, dishwashers, and vacuum cleaners. His next most important effort is pointed toward the disposal of used appliances obtained as a result of trade-in allowances granted to customers. Some dealers adopt the policy of disposing of used merchandise as quickly as possible making no particular effort to obtain any material profit while others recondition the articles and obtain maximum prices in much the same manner as with their other products. In addition, the average dealer handles an assortment of small articles, such as clocks, hand-irons, mixers, and coffee makers, together with a stock of repair and replacement parts. A service department is maintained by many dealers to handle deliveries and installations of appliances sold, to service and repair appliances covered by guarantee, and to answer the many other repair and service calls of the public. The last-mentioned activity of the service department, while not as a general rule very profitable in itself, is usually a fairly fruitful source of information as to prospective customers for new appliances.

Most of the major appliances are sold on the installment plan under the terms of conditional sales contracts which include spe-

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cific financing charges. If the dealer has sufficient cash resources he may carry these contracts himself but in most cases they are sold to or discounted with a finance company. Usually, the dealer guarantees payment of the contracts but in some cases he can sell them without recourse. Generally speaking, therefore, the only accounts receivable carried by the average dealer are those arising from the sale of small articles and service and repair charges.

Another form of financing in which the average dealer engages because of lack of his own capital revolves around the major appliances which are carried as part of the dealer's merchandise on display in the store. The dealer makes a small down payment to the manufacturer or distributor on a number of models which he is desirous of displaying on his floor and executes a trust receipt note for the balance due. The trust receipt lists separately the balance due on each article, which amount the dealer pays off as he sells the appliance.

Theory of Accounts

The appliance dealer's business is concerned primarily with the problem of buying and selling and, as a consequence, his operating accounts should clearly set forth the following information:

1. Income from sales, either in total only, or classified as to the various types of units sold
2. The cost of such merchandise sold either in total only or classified by type of unit to correspond to the sales breakdown
3. Expenses necessary to solicit and effect the sale of the merchandise
4. Expenses incurred in the delivery, installation, and service of the appliances sold
5. Expenses required in the general administration of the business
6. Costs of financing the operation of the business as a whole

All the dealer's operating transactions should, therefore, be segregated on the foregoing broad basis and analyzed to such degree as is appropriate and desirable.

Since most retail installment sales contracts carry a specific financing charge, no deferring of gross profit on the so-called "installment basis" is generally undertaken. Such deferring and spreading of income over the life of the contract is restricted to the

interest from financing charges, and this largely disappears from the dealers' accounts because it is absorbed by the finance company that purchases the contracts. If, however, the dealer finances contracts himself, such interest income should be deferred and prorated over the life of the contract.

A major contingent liability is usually existent as a result of the dealer's guarantee of the contracts discounted or sold to the finance company. Very often the finance companies withhold a portion of the proceeds due to the dealer, varying from 3 or 4 per cent to as high as 10 or 15 per cent, in order to build up a cash reserve as security for the guarantee. This is almost always classified on the balance sheet as a noncurrent asset. Some dealers adopt the conservative policy of establishing an offsetting reserve for contingencies of an equal amount. Losses inherent in the unpaid contracts guaranteed by the dealer are usually provided for by setting up adequate reserves.

Many theories and methods are advanced with respect to the treatment of repossessions. The simplest and most logical seems to be merely to treat the difference between the value to the dealer of the merchandise repossessed and the unpaid balance as a "repossession loss" in much the same category as a bad debt.

Accounts Required

Conditions surrounding the appliance business vary considerably as between dealers in such matters as size of organization, predominate type of income, and capitalization, so that the development of the accounts must take cognizance of these facts when dedetermining the amount of analytical detail to be provided for. Specifically:

1. Sales and related costs may be analyzed separately by various products, such as radios, refrigerators, ranges, washers, cleaners, other small appliances, parts and accessories, and service, or may be contracted to show only segregation for major appliances, all other merchandise, service, and labor.
2. Expenses may be analyzed in considerable detail and segregated into the natural divisions of selling, delivery, and service, general and administrative, and financial, or they may be merely listed as to the nature of the expense without department segregation.

Preparation of an acceptable basis of accounts which can be expanded or contracted to meet the varying conditions aforementioned will proceed well by adopting a numerical spread for the

general accounts and alphabetical designations for analysis of sales and costs and department segregation of expenses. For example:

Numbers	Will Designate
1– 49	Current Assets
51– 79	Fixed Assets and Related Reserves
81– 89	Deferred Charges
91– 99	Other Assets
101–139	Current Liabilities
141–149	Other Liabilities
151–199	Capital Accounts
201–219	Sales
221–299	Costs of Sales
301–399	Operating Expenses
401–409	Other Income
411–419	Other Expense

If it is desired that sales and related costs be classified according to type of appliance, etc., it could well be handled by affixing alphabetical symbols in conjunction with the account number somewhat as follows:

	Sales	Return Sales	Cost of Sales
Major Appliances	201	211	221
New radios	201a	211a	221a
" refrigerators	201b	211b	221b
" ranges	201c	211c	221c
" washers	201d	211d	221d
" cleaners	201e	211e	221e
" ironers	201f	211f	221f
" dishwashers	201g	211g	221g
Used radios	201h	211h	221h
" refrigerators	201i	211i	221i
" washers	201j	211j	221j
" cleaners	201k	211k	221k
" ironers	201m	211m	221m
" dishwashers	201n	211n	221n
Other Merchandise—including parts and accessories	202	212	222
Service and Labor	203	213	223

An operating expense classification that will be appropriate in most cases follows:

No.	Account	Selling	Service and Delivery	General and Administrative
301	Salaries—Proprietors	301a		301c
302	Salaries and Wages—Others	302a	302b	302c
303	Commissions	303a		
304	Travel and Entertainment	304a		304c
305	Advertising	305a		
306	Rent			306c
307	Light, Heat and Water			307c
308	Telephone and Telegraph			308c
309	Truck and Delivery Expense		309b	
310	Freight and Express		310b	
311	Insurance	311a	311b	311c
312	Taxes and Licenses	312a	312b	312c
313	Supplies	313a	313b	313c
314	Stationery, Printing and Postage			314c
315	Service Expense		315b	
316	Repairs			316c
317	Legal and Accounting			317c
318	Repossession Losses and Expenses			318c
319	Dues and Subscriptions			319c
320	Donations			320c
321	Other Miscellaneous Expense	321a	321b	321c
322	Bad Debts Written off or Allowance			322c
323	Depreciation		323b	323c
324	Amortization of Leasehold Improvements			324c

Operating Statements

The proper and effective management of an appliance business requires that the operating statements be prepared to set forth the following information:

1. Volume of sales for each classification as adopted by the dealer
2. Relation of costs and gross profit to sales for each classification as adopted by the dealer
3. Relation of total expense by departments to sales
4. Relation of each separate expense item to sales

STATEMENT OF PROFIT AND LOSS

	Net Sales	Costs	Gross Profit	% To Sales
REVENUES				
Major Appliances				
Radios				
Ranges				
Refrigerators				
(Etc.)				
Other Merchandise				
Service and Labor				
Total				

	General and Administrative	Delivery and Service	Selling	Total	% To Sales
OPERATING EXPENSES					
Salaries—Proprietors					
Salaries and Wages—Others					
Commissions					
Travel and Entertainment					
Advertising					
Rent					
Light, Heat, and Water					
Telephone and Telegraph					
Truck and Delivery Expense					
Freight and Express					
Insurance					
Taxes and Licenses					
Supplies					
Stationery, Printing, and Postage					
Service Expense					
Repairs					
Legal and Accounting					
Repossession Losses and Expenses					
Dues and Subscriptions					
Donations					
Other Miscellaneous Expense					
Bad Debts Written Off or Allowance					
Depreciation					
Amortization of Leasehold Improvements					
Totals					
% to Sales					

NET PROFIT ON OPERATIONS

OTHER INCOME
Interest Earned
Discounts on Purchases
Miscellaneous
Total

OTHER EXPENSE
Interest Expense
Discounts on Sales
Miscellaneous
Total
Net

NET PROFIT $ $

It can be readily seen that a dealer of a small business not wishing to segregate his expenses into department detail needs only to eliminate the undesired columns and utilize single accounts as per the total column. Likewise, he need only segregate his sales into the three main divisions of major appliances, other merchandise, and service and labor.

BALANCE SHEET

The following balance sheet illustrates the usual accounts found on the books of the household appliance dealer:

BALANCE SHEET

ASSETS

CURRENT ASSETS
Cash in Banks
Cash on Hand
Accounts and Contracts Receivable
Less: Reserve for Doubtful Accounts and Contracts
Inventories—Major Appliances
Other Merchandise
Total Current Assets

FIXED ASSETS
Furniture and Fixtures | Less Applicable
Automobiles and Trucks | Reserve
Total Fixed Assets

DEFERRED CHARGES
Prepaid Rent
Unexpired Insurance
Other Prepaid Expenses
Total Deferred Charges

OTHER ASSETS
Finance Company Reserve Deposits
Other
Total Other Assets

TOTAL

LIABILITIES AND CAPITAL

CURRENT LIABILITIES
Notes Payable—Banks
Notes Payable—Others
Merchandise Notes and Contracts Payable
Accounts Payable
Accrued Taxes
Other Accrued Expenses
Finance Company Collections
Due to Finance Company on Repossessions
Total Current Liabilities

OTHER LIABILITIES
Total Liabilities

CAPITAL
Sole Proprietor, partnership or corporation capital accounts

TOTAL

Note: In addition to the above, the company is contingently liable on account of its guarantee of discounted contracts of approximately $

Valuation of assets and liabilities of the household appliance dealer follows normal accounting procedure. In addition to the usual valuation reserves for doubtful accounts and contracts which the dealer is carrying on his own books, adequate provision should always be made to cover any liabilities with respect to discounted contracts, payment of which is guaranteed. All contracts known or definitely expected to be paid off by the dealer and the merchandise repossessed should immediately be set up as "Due to Finance Company on Repossession." In addition reserve provisions should be maintained to provide for the contingent losses based on the analysis of delinquency of payment, etc. Segregation should be made, if conditions are applicable, between customer's open accounts receivable balances and installment contracts receivable.

Bookkeeping Methods

The bookkeeping system of the household appliance dealer should include the following books of original entry: (1) record of sales, (2) record of cash received, (3) record of invoices or vouchers, (4) record of checks drawn, and (5) record of journal entries. Each of these should be handled as a separate register with columns to provide for the various elements of the transactions. A separate entry should be made for each transaction involving a major appliance. All others may be grouped and entered daily or weekly as conditions dictate.

The usual ledgers to which transactions are posted from the books of original entry are as follows:

The General Ledger controls all other ledgers and records; contains the record of assets, liabilities, capital, surplus, and detailed income and expense accounts.

The Accounts and Contracts Receivable Ledger is the detailed record of transactions with customers.

The Accounts Payable Ledger is the detailed record of transactions with creditors, or, in lieu thereof, a voucher system may be used.

The Stock Ledger gives the detailed record and control of all major appliances showing the acquisition, situs, and disposition of each individual unit, all of which usually carry manufacturers' serial numbers.

Payroll Records are the usual statistical records necessary to conform to social security and wage and hour acts and to prepare the required statements for government agencies and employees.

All entries in books of original entry and postings to ledgers follow customary bookkeeping practice. The following points should be observed in connection therewith:

Merchandise Costs—Major appliance sales should be costed individually and summarized for one entry at the end of each period charging cost of sales and crediting the merchandise account. Other merchandise sales may also be costed individually or an average percentage may be applied from month to month which should be checked frequently as physical inventories are taken.

Merchandise Trade-ins—Used merchandise traded in by customers should be recorded in connection with the sale upon which the allowance is made. This is done by charging the trade-in allow-

ance to the merchandise account. In the instance where the trade-in allowance contains an element of discount or sales allowance, the merchandise account should be charged with the value of the used article and remainder charged to sales allowances.

Repossessions—When an appliance is repossessed and it is necessary to pay to the finance company the remaining balance of the customer's contract less the adjustment of finance charges, the value to the dealer of the returned merchandise is charged to Merchandise account and the balance is charged to Repossession Losses and Expenses.

Contracts Receivable Discounted—When contracts are sold or discounted to the finance companies with guarantee of payment by the dealer correct accounting theory advocates crediting the amount of the contract to an account titled Contracts Receivable Discounted, and making periodic reductions of this account and the Contracts Receivable account as collections are effected by the finance company. While theoretically this should be done, in order to record and control the amount of unpaid contracts in the hands of the finance company, it is usually unnecessary to do so, the credit instead being applied directly against the customer's Contracts Receivable account. The amount of unpaid contracts can be obtained at any time from the finance company.

ACCOUNTING FOR THE INDIVIDUAL AND FAMILY

By
NEVA HENRIETTA RADELL *

PURPOSE AND FUNCTION

Financial records for individuals and families have been in use for many years, and the necessity of keeping records for the economic unit, which each of these constitutes, has been recognized practically since the time accounting was adopted for the control of business enterprise. Such personal records are needed now for tax purposes in addition. More recent, however, is the formulation of a complete system of accounting whereby a clear picture of the earning and spending program of the individual and family is presented, the results analyzed, and control used to expand and broaden the benefits derived from income. As a result of the adoption by many individuals and families of a planned program of earning and spending, understanding and intelligence in money matters are gradually replacing misunderstanding and ignorance in all phases of family life. This is brought about in no small measure by the knowledge of how money is earned and spent in relation to individual interests and to satisfactions obtained.

It is the author's point of view, based on experience in teaching the subject, that specific techniques must be learned and objectives set up by those who wish to introduce planning into their financial life. They should start with definite knowledges, skills, and objectives pertaining to record keeping and financial management. Otherwise, as has happened in the past, the system set up by the individual charged with the management of his own finances or that of the family group fails or is discarded because a small obstacle arises and no satisfactory solution in found. It is easy then

to decide to suspend the keeping of financial records until the beginning of the next calendar year, when a further attempt will be made.

Of course, every plan for the control of finances is at times liable to run into snags or difficulties. Financial living, like all other phases of human affairs, is not a static quantity. Rather, it is dynamic and subject to change and modification as new situations arise. However, where the financial plan is predicated on a thorough knowledge of the principles and basic skills underlying record keeping and the control of income and expenditures, the system need not be vitally affected by some unforseen obstacle or problem when it presents itself.

It is always more desirable to start a system of records on a small scale and enlarge it as to scope and detail as interest grows and the incentive and desire to know more about it increases. As the plan of earning and spending is studied, greater intelligence in the use of money and a more active interest in the manner in which it is used are sure to develop. On the other hand, concern about the daily expenditures gradually fades, the process of recording becomes routine, and the system moves along on its own momentum. Fear and insecurity diminish, and each new situation is met with increasing assurance.

Regardless of the size of the individual or family income, a system of records is important; the extensiveness and complexity of these records, however, is determined in part by the amount of the income. As the level of income increases and the demands on these earnings become more numerous, record keeping naturally assumes even greater significance. Only by adequate check can the relationship between income and spending for various purposes be analyzed with respect to the requirements of a given standard of living.

The keeping of records usually precedes the building of a financial plan, often called a budget. The latter term is not used here because of its limiting connotation. It may take three or more years of record keeping before a completely workable financial plan can be constructed. A sound plan must be built on facts and not fantasies; and only records reveal the truth about earning and spending.

An illustration of a financial plan follows.

FAMILY FINANCIAL PLAN

January 1 to December 31, 19__

INCOME	Week	Four-Week Period	Annual	Per Cent
Salary	$35.00*	$140.00	$1,820.00	100.0
EXPENSE				
Food	9.00	36.00	468.00	25.7
Housing				
Interest, taxes, insurance, etc., $5.44; Fuel, $2.12	7.56	30.24	392.12	21.6
Household				
Utilities, help, supplies, equipment	5.10	20.40	265.20	14.6
Clothing				
Mr. A., $65: Mrs. A., $60; Son, 5 yrs., $25; Daughter, 3 yrs., $20; Baby, $10	3.46	13.84	179.92	9.9
Personal				
Mr. A., 50 cts.; Mrs. A., 50 cts.	1.00	4.00	52.00	2.9
Automobile				
Expense, $2.20; reserve, 69 cts.	2.89	11.56	150.00	8.2
Professional Services	1.00	4.00	52.00	2.9
Advancement				
Personal and social development, $1; Contributions, 33 cts.	1.33	5.32	69.16	3.8
Life Insurance	1.76	7.04	91.80	5.0
Federal Old-Age Benefits Tax	.35	1.40	18.20	1.0
Total Expenses	$33.45	$133.80	$1,739.40	95.6
Savings	1.55	6.20	80.60	4.4
	35.00	140.00	1,820.00	100.0

INCOME AND EXPENDITURE CLASSIFICATION

The first step in individual and family financial planning and record keeping is to formulate a classification of income and expenditures. In business accounting, this corresponds to setting up a

* The underlined numbers are those on which the plan is based.

chart of accounts. The classification consists of headings under which income and expenses are grouped.

Because of the different sources of income, varying economic levels, and unusual interests of individual and family units, classifications will differ in some respects, but on the whole, they will follow a general pattern. In every case, however, the classification to be used should be decided upon as fully as possible at the beginning and added to or otherwise adjusted as the need arises.

To aid in making a classification, a discussion of income and the usual types of expenses is presented, with illustrations.

Income

Below are some illustrations of possible groupings for different individuals and families of the classification of income.

- Wage Earner
  - Wages
  - Interest
  - Miscellaneous Income
- Salesman
  - Salary
  - Commission
  - Bonus
  - Other Income
- Dietitian or Nurse
  - Salary
  - Maintenance
    - Room
    - Board
    - Laundry
    - Telephone
    - Other
  - Income from Investments
- Business Proprietor
  - Income from Operation of Business
  - Interest
  - Avocation
- Retired Individual or Family
  - Income from Ownership of Real Property
    - Property A
    - Property B
    - Property C
  - Dividends
    - Stock A, Preferred
    - Stock B, Preferred
    - Stock A, Common
    - Stock B, Common
  - Interest
    - Bonds A
    - Bonds B
    - Savings Bank A
    - Savings Bank B
  - Capital Gains
  - Miscellaneous Income

Expenses

Food—The subdivisions for this item vary with living conditions and circumstances. If a family dines at home for all meals and buys all of the food for the preparation of meals, one account—Food—will suffice. Likewise, if an individual boards, one account—Board—is adequate.

If an individual or member of a family has one or more of his

meals away from home regularly, it is well to separate the expenditure for these meals from household food. This subdivision for regular meals other than in the home may be separated for each member of a family who is allowed money for this purpose. Other regular outside meals may also be considered separately, if desired.

Should an individual or family live in a place with a garden, chickens, a cow, or any other food producing livestock for family use only, the expenses for these items may be separated from household food although they are still charged to Food.

The following are some of the combinations which may be used in subdividing food:

Household Food
Lunches

Household Food
Lunches for A
Lunches for B
Lunches for C

Household Food
Garden Expense
Livestock Expense

Household Food
Garden Expense
Lunches
Other Meals Out

Housing—Tenancy—Housing may include rent only, or, if there is carfare and commutation, these items may be charged to this category. Some individuals, however, prefer to charge all of their carfare to Personal Expense. Others think of commutation as a deduction from Income, and they so charge it. Fuel for heating is often included here.

Utilities may be entered under either Housing or Household Expense. The following are subdivisions of Housing for use by tenants:

Rent

Rent
Commutation

Rent
Business Carfare
Utilities

Housing—Ownership—Owning a house and lot involves many types of expenses. If the property is not paid for, the first expense incurred is the interest on the mortgage, or the building and loan payments. Mortgage payments on the principal may also be entered, although such payments, as well as part of the building and loan payments, are not considered expenses. Fuel for heating may be charged here.

Fire insurance is properly charged to Housing. All other items

may be charged to upkeep or subdivided into property taxes and assessments, repairs and maintenance, improvements and fixtures, and lawn, flowers, and shrubbery. Following are some typical subdivisions:

Mortgage Interest	Improvements and Fixtures
Fire Insurance	Lawn, Flowers, and Shrubbery
Taxes and Assessments	Fuel for Heating
Upkeep	Building and Loan Payments
Taxes and Assessments	Fire Insurance, Taxes, Assessments
Insurance on Buildings	Fuel for Heating
Repairs and Maintenance	Utilities
	Other Expense

Clothing—The expenditure for clothing seems best divided into two groups: (1) wearing apparel and accessories and (2) upkeep. It may be desirable to record the entire expenditure separately for each member of the family. Should a detailed classification be desired, the third illustration below may be followed.

1. Wearing Apparel and Accessories
   Upkeep—Laundry, Dry Cleaning, and Repair

2. Clothing and Upkeep for Husband
   Clothing and Upkeep for Wife
   Clothing and Upkeep for Son
   Clothing and Upkeep for Daughter

3. Wearing Apparel
   - Coats
   - Dresses and Suits
   - Hats
   - Hose
   - Lingerie
   - Shoes
   - Other

   Accessories
   Upkeep—Clothing
   - Dry Cleaning
   - Laundry
   - Repairs
   - Other

   Upkeep—Shoes
   - Repair
   - Other

Household Expense—All household expense may be carried together under this one general heading, or the larger items of household expense may be in separate divisions. Household utilities, such as gas, electricity, water, and telephone, if not charged to Housing, may be placed in a separate section. Special divisions may be used for household help, laundry, supplies, furniture and house furnishings, equipment, insurance on house furnishings, and others. Some of the groups used follow:

Operating Expense
Furniture, Furnishings, and Equipment

Help
Laundry, Cleaning, and Paper Supplies
Utilities
Upkeep of Furniture, Furnishings, and Equipment
Utensils and Kitchen Equipment
China, Glassware, Silver
Linen and Bedding
Furniture and House Furnishings

Insurance on Household Goods
Utilities
Fuel for Heating
Furniture and House Furnishings
Equipment
Help
Other

Utilities
Operating Expense
Furniture, Furnishings, and Equipment
Insurance on House Furnishings

Personal Expense—Personal expenses are separated from household expenditures in order to know what is spent for purely personal needs. This division will show the woman when she is neglecting herself and her personal interests for her home. Likewise, if a separate accounting is made of the personal expenses of each member of the family, there is more likelihood of a fair division of these expenses. In the case of the individual, personal expenses may be divided into the types of expense an individual has. If the amount for professional services is large, it is better to make a separate main division for this expense. Purchases of considerable size may also be included here in a special category. The items following show suggested classifications.

Individual
- Grooming
  - Beauty or Barber Shop Services
  - Toilet and Medical Supplies
- Professional Services
- Luxuries
- Carfare
- Miscellaneous

Family
- Husband
- Wife
- Son
- Daughter

Automobile—For the person interested in an analysis of the cost of operating an automobile, the division of variable operating, fixed operating, and financial expenses may be used. Variable operating expenses are those incurred only when the car is used. Fixed operating expenses, on the other hand, are those that must be paid for or those that cover the entire year and exist irrespective of the use made of the car. Financial expenses are those that do not occur as a tangible expense, but exist because of the fact of

ownership of a car. Depreciation on the car and interest that one could get on the money invested in the car are the financial expenses. By using the mileage record of the car, it is possible to get the unit cost or mile cost for each type of expense as well as for the groups of expense. This suggested division for automobile expense may be used as in the following:

Variable Expense	Fixed Expense
Gasoline	Garage
Oil and Greasing	Insurance
Washing and Polishing	Licenses and Inspection Fees
Repairs and Parts	Financial Expense
Accessories	Depreciation
Tires	Interest on Investment
Miscellaneous	

Advancement—Divisions under Advancement are based entirely upon the activity and financial status of the individual or family. In some books on this subject, it is suggested that entertainment be a subdivision of Advancement. In as much as there are many kinds of entertainment (work to some is entertainment to others) it seems better to name specific types of entertainment for each individual. These may be grouped together under Personal and Social Development, or, if any one takes up a large portion of this expense, it may be set aside as a separate subdivision. The expense of a hobby may be, and usually is, of sufficient amount to warrant a separate division. Vacation and travel, also, may be separated from the general group of expenses, Personal and Social Development.

Particularly for a young man who is single, it is advisable to have a subdivision, entertaining, for the amount spent for this item is important and should be known. Children's allowances may be included here when they are given for savings, church school, school supplies, and a small amount for spending. If an allowance is given for lunches, clothing, or carfare, it is better to charge the amounts to the respective accounts. Below are illustrations of groups under Advancement:

Personal and Social Development Vacation	Vacation Contributions
Personal and Social Development Hobby	Personal and Social Development Theater, shows, books, magazines, gifts, hobby, sports

Share in Automobile Expense
Vacation
  All expenses incurred

Personal and Social Development
Professional Development
  Courses, degrees, conventions, books and magazines, etc.
Research Project
  Salaries, materials, supplies, postage, travel, carfare, entertaining, rental of machines, etc.
Travel
Contributions

Children's Allowances
Motion-picture Admissions
Newspapers
Contributions
Other

Insurance—This account is properly divided into optional or private insurance, and compulsory or Federal and state government insurance. Both are treated as expenses.

Private Insurance Premiums
  Life
    Straight
    Endowment
  Annuity
  Disability
  Other

Federal or State Taxes
  Old-Age Benefits
  Unemployment Relief
  Other

Income Taxes—This item of expense is best shown individually, and contains both Federal and state assessments.

Income and Expense Classification

The general classification following is designed to meet every ordinary type of income and expense, and it is flexible enough to be a pattern that can be followed by any individual or family in making up a plan for grouping income and expenditures.

Income

Allowance
Commutation
Dividends
Fees
Income from operation of a business
Income from the ownership of real property
Interest
Maintenance—Board, room, other
Miscellaneous or other income
Royalties
Salary
Wages
Other

Expenditures

Food
  Garden supplies and expense
  Household food
  Livestock producing food
  Meals out—regular or other
  Other

Housing

Tenancy

Business carfare *
Commutation
Rent
Utilities—gas, electricity, steam, telephone, water, etc.*

Ownership

Building and loan payments
Business carfare *
Commutation
Fuel for heating
Improvements and fixtures
Insurance on building and furniture *
Lawn, flowers, shrubbery
Mortgage interest
Property taxes and assessments
Repairs and maintenance
Utilities—gas, electricity, steam, telephone, water, etc.*
Other

Clothing
Accessories
Dressmaker's salary
Dressmaking materials, supplies, equipment
Dry cleaning, pressing, repairs
Laundry of clothing
Ready-made wearing apparel
Storage
Tailor-made clothing
Other

Household Expense
China, glass, silver
Cleaning and laundry equipment
Cleaning and paper supplies
Family gifts
Flowers
Fuel for heating *
Furniture and house furnishings
Gas and electricity *
Help
Household laundry
Ice
Insurance on household goods *
Kitchen equipment and utensils
Linen and bedding
Medical supplies
Repairs and upkeep
Telephone *
Toilet articles *
Water *

Personal Expense
Accident and health insurance
Automobile operator's license fee
Barber shop
Beauty shop
Beverages
Carfare *
Children's allowances *
Confectionery
Corsage
Jewelry
Luggage and travel accessories
Medical supplies
Pets
Postage
Smoking supplies
Stationery
Telephone, telegrams, etc.*
Toilet articles and supplies *
Other articles or expenses of a personal nature

Automobile
Accessories
Depreciation
Garage
Gasoline
Insurance
Interest on investment
Oil and greasing
Parking fees

* Listed under more than one heading—choice to be made by individual.

Repairs and parts
Registrations and inspection fees
Tips Tires
Tolls
Washing and polishing
Other expenses

Professional Services
Dental
Hospital
Legal
Medical
Optical
Surgical
Other

Advancement
Books
Charity
Children's allowances
Club dues
Donations
Entertaining
Gifts and sending charges (other than family)
Hobbies
Magazines and newspapers
Motion picture admissions
Music and musical entertainment
Professional advancement
Radio
Scholarships
School supplies
Sports and equipment
Telephone *
Theater admissions
Travel
Transportation other than business
Vacation
Other expenses

Insurance
Private Insurance Premiums
Annuity
Endowment
Life
Retirement income
Other

Federal or State Taxes
Old-age benefits
Unemployment relief

Income Taxes
Federal
State
Other

Records

Cash Memorandum—The cash memorandum book contains the daily record of money income and expenditure. The book may be an inexpensive little notebook or a leather book, and it should be adequate for one year's use. The really important requirement, however, is that it should contain an accurate and complete record. This record may take any one of the following forms, depending upon personal need and choice.

1. An ordinary notebook with ruled pages, bound or loose-leaf, may be used. The date is entered, and under it are placed the items of income and expenditure together with the amounts. A single page may serve for one or more days. This form of the cash memorandum book is simple and has proved to be most satisfactory.

2. A small memorandum book may be used in which the division by days is already provided in printed form. Under each date, the items of income and expenditure for that date are recorded.

3. If a classification of expenditure is desired in this record, a small notebook, bound or loose-leaf, with several vertical columns may be employed. The columns are given headings according to the expenditures which occur daily or often, for example, food, lunch, and carfare.

4. In the home, a sheet of paper, ruled or unruled, posted in the kitchen may serve as an adequate memorandum record. The sheet may contain the entire record of income and expenditure for the family, or it may be used only for a part of the record, such as food. Should this type of memorandum cover only a part of the expenditure record, it must be supplemented by another memorandum in order that a complete cash record be available.

No matter what form the cash memorandum book takes, the general procedure for recording items is the same. As the transaction occurs, or at a convenient time later, a notation of the item, together with the amount received or disbursed, is made. Because the initial record is most important, it is advisable to make these entries on the day they occur. Trusting to one's memory after a few days have elapsed is rather hazardous to accuracy. For this reason, many individuals prefer to carry the memorandum book with them and to record the transaction at a convenient time after it takes place. It may be satisfactory for some to wait until the end of the day for making the entry. The cash memorandum book may be kept in pencil, but, if ink is available, a neater book may result.

Checkbook Stub—The bank furnishes blank checkbooks for customers having checking accounts. Each leaf of the book is composed of the check proper and the attached stub. The stub is always filled in first, after which the check is written with pen and ink, or on the typewriter. The signature is always in ink. The check stub becomes the memorandum record for cash drawn from the checking account, and the expenditure is not entered in the cash memorandum book. On the stub, also, the balance of the amount of money in the account is shown, and a check is not written unless the amount of the balance covers the amount of the check.

Personal or Household Record Book—This is a permanent

record book in which the cash income and expenditures are entered chronologically as in a book of original entry. When the book is open, the record covers two facing pages. The pages contain vertical columns representing the various accounts used by the individual or family. The headings of the columns do not follow in order of the classification of income and expenditure here; their order depends, rather, on the frequency of the use of the column. To the extreme right, a sundry column is provided to take care of those expenses that do not occur frequently enough to warrant the setting up of special columns.

The memoranda from the cash memorandum book and from the checkbook stubs are entered in ink or indelible pencil in this book either daily or weekly, the explanation and amount being written in their proper columns. A total may then be found for all of the entries on the line and placed in the total column.

At the end of the week, and always at the end of the month or period, each column is added, and a list is made of the sums in order to prove the correctness of the entries. The sum of the total column should be the same as the sum of the totals of the columns. This amount is subtracted from the total income, and the difference is equal to the sum of the cash in the bank and the money on hand.

In the back of the record book is a summary section. Here the accounts used in the financial plan are listed and in columns adjoining are entered the amounts of income and expenditure for each month or period. The month-to-month summary gives a picture of the amount for each item of income and expense and makes a comparative study possible when desired.

Income and Expenditure Analysis and Control Book—For this, the most significant single record for the purpose of analysis and control, a bound or preferably a looseleaf notebook, approximately 5½ by 8½ inches, may be used. Each page represents one class of income or expense like an account in a ledger, and on the page is entered the monthly or weekly total for that particular income or expense. Besides the current total, the amounts are cumulated both for the actual income and expenditures and for the estimated amounts. The figures for the period as well as the "to date" or cumulated ones may thus be compared to and analyzed in terms of the estimated expenditures for the current period, those "to date." The Control Book may be used with any system of record keeping.

Children's Allowance Records—Children may keep complete records of their allowances and expenditures in small notebooks bought for the purpose. Each week they should prove cash by comparing the amounts of money on hand with the difference between their allowance and the amounts they have spent. All children would profit by being given an allowance so that they could learn how to spend and begin to have a concept of values. Allowances may be increased gradually and children given responsibility for more of their wants and needs.

Reserve Record—In one section of the record book or the control book, there are pages where entries are made for savings and reserves. This serves as a record of the amounts deposited periodically in the savings bank and of the purpose of these savings. The total amount is divided among permanent savings and the several reserves, which may include insurance, vacation, professional services, or any others that are desired. Such a record of money set aside for a specific purpose tends to restrict the expenditure for another purpose. Reserves may also be kept in the checking account when the amounts are to be used within a short time. Here, again, deposits are recorded on a separate page with special columns for reserves.

Clothing Cost Analysis—Within a family, there is an advantage in dividing the clothing cost by charging the individual expenditures to the member of the family responsible for them. However, when doing this some items of cost may have to be divided and charged to the members receiving the materials or services. For example, a dressmaker's salary may be divided by days or hours and the parts charged to the member involved. The record of this is kept in part in the family record book and in detail in the control book. Columns may be arranged to take care of each type of apparel, accessories, and the clothing upkeep for each member, so that at the end of the year a report may be made of the clothing costs.

House Furnishings Record—A record of the cost of each article of furniture, furnishings, and equipment and of accessories is entered in the control book in a section in the back which is set up for this purpose. A page represents one room in the house, and the entries therefore are made by rooms. The date of purchase is entered first, followed by the articles and their cost. If any information is desired, a description and the name of the dealer or party

from whom the article was purchased may be entered. Bills and tags may also be kept in a box for future reference.

Since some of the items do not belong in any particular room, a separate page is maintained for china, glass, silver, linen, and bedding and another for cleaning equipment. Laundry equipment is usually listed under laundry room if one is provided and, if not, under cleaning equipment. Other divisions may also be used. A page for the totals by rooms and other classifications to summarize all of the house furnishings is at the end of this group of pages. If items are transferred from one room to another, an entry is made in red for the outgoing article, and on the page to which it is transferred, it is entered as a new item would be.

The cost of all items is used whether or not this price is above or below the marked price or market value. Depreciation neither reduces the book value of the room, nor does appreciation increase the book value of the room. The house furnishings record is best set up when furniture and furnishings are bought. (See illustration—Figure A.)

Cost of Operation of Automobile—A detailed record of automobile costs may be kept in the record book and in the control book. The information classified in the control book is used in making up an annual statement of operation of automobile, which shows the amount spent for each of the various expense items. In addition to the statement of total costs, there are unit costs. These are figured by using the mileage, months of operation, gallons of gasoline, quarts of oil, and the total expenses. The unit costs found are total cost per mile, total operating cost per mile, number of miles per gallon of gasoline, number of miles per quart of oil, and operating cost per month. (See illustration—Figure B.)

Taxes Paid—In a section to the right of the Total Expense in the personal and the household record books are columns for federal, state, and city taxes. The tax, when paid, is charged to the article bought, the service rendered, or the specific expense, and is so entered in the record book. In addition to this charge, a separate record of the tax is made here so that the total amount paid in taxes may be known and used in the income tax reports.

Entertainment Costs—The cost of entertaining is recorded on a sheet in the control book where the items purchased—invitations, food, prizes, etc.—and the amount paid for each are listed. In this

Bedroom

Date		Item and Description	Cost			
May	7	*Bed*	12	00		
	7	*Springs*	15	00		
	7	*Mattress*	15	00		
	7	*Chest of Drawers*	18	00		
	7	*Dressing Table and*				
		Bench	7	50		
	7	*Mirror*	1	50		
	15	*Rugs*	16	00		
	23	*Waste paper basket*		90		
June	2	*Curtains*	6	00		
	2	*Dressing table lamps*	2	00		
	2	*Bed lamp*	1	00		
	7	*Picture*	1	10		
	18	*Bedspread*	3	00		
		Total Purchases			99	00

Figure A.

STATEMENT OF OPERATION OF AUTOMOBILE
JANUARY 1 TO DECEMBER 31, 19–

Variable Operating Expense				
Gasoline	64.90			
Oil	6.45			
Greasing	4.05			
Repairs and parts	15.20			
Tire expense	7.80			
Miscellaneous	1.20			
Total		99.60	55%	42%
Fixed Operating Expense				
Garage	36.00			
Registration	11.50			
Insurance	35.40			
Total		82.90	45%	35%
Total Operating Expense		182.50	100%	
Financial Expense				
Depreciation	50.00			
Interest on $300 investment at				
2%	6.00			
Total		56.00		23%
Total Expense		238.50		100%

UNIT COSTS

Months of operation	12	*Quarts of oil*	26
Mileage	4,896	*Operating cost of a mile*	3.7¢
Gallons of gasoline	324	*Total cost of a mile*	4.8¢
Average cost of a gallon	20¢	*Average operating cost for*	
Miles on a gallon of gas	15.1	*a month*	$15.21

Figure B.

way the total cost of the entertainment is known and may be broken down into unit costs, food cost per person, or total cost per person. This record forms a pattern for future entertaining and has excellent reference value.

Travel Record—It has been found most desirable to record travel expenditures in diary form. In so doing the activities of the successive days are more readily recalled. A special book is purchased for each trip. Later when a total picture is desired, the expenditures are placed in their proper categories, summarized, and broken down into unit cost for the day.

ACCOUNTING FOR INSTALLMENT SALES COMPANIES

By

L. L. Siegel *

Description of Business

The installment business differs primarily from other retail businesses in that it grants longer terms of sale. Whereas the average terms of sale extended in the usual retail establishment are cash or are limited to thirty days, an installment business grants terms in some instances up to a period of three years.

In past years, installment selling existed chiefly in the sales of large or bulk items. In recent years, it has spread so that today almost any class of merchandise can be bought on the installment plan. This recent development has created running accounts with customers and as a result has complicated the granting of credits to buyers. There are two methods in common usage today: (1) the credit department may approve each sale before delivery; or (2) the credit department may establish a maximum credit for each customer and use some means of identification which both identifies the customer and informs the salesclerk of the unused balance to that customer's credit. The coupon book is widely used for the latter purpose.

The handling of installment sales entails considerably more expense than the handling of the open account because of the additional bookkeeping and collection costs involved. For this reason a percentage of the selling price is usually added to the sale and charged to the customer. If the account is fully paid prior to the date of payment set forth in the sales agreement a portion of this charge is generally refunded.

Where merchandise sold is to be paid for in small amounts, title usually remains with the seller. This plan is accomplished by having the customer sign an agreement in which he leases the mer-

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chandise from the seller, and agrees that title is to pass only after the final payment called for in the contract has been made. This gives the seller the right to repossess the item sold if the terms of the agreement are not met. It is doubtful whether any repossession benefit is gained from such an agreement, except where slowly depreciating items, such as furniture and refrigerators, are involved.

THEORY OF ACCOUNTS

Because of the recent growth of the so-called credit department store this treatise will be limited to a discussion of problems pertaining to that type of business.

First, it is necessary to determine whether or not it would be advantageous to keep records on the installment basis. If so, generally speaking, what does the management want to obtain from its records that is different from the information sought by the "cash" merchant?

As a theory of installment accounting calls for the deferment of profits on sales and the computation of gross profits by allocating collections as between cost of goods sold and gross profit, it becomes imperative that these collections be ascertained and segregated as to the year of sale. This control of collection is recorded in such a manner as to furnish the installment merchant with statistical information based upon collections which will aid him in the intelligent conduct of his business. While the usual retail business bases its statistics on sales, the sales of an installment business may be no indication of the cash funds with which its management must operate.

Gross profits must be determined on the accrual basis also, in order to ascertain the percentage of profit included in each year's sales and to determine the amount of gross profits which would be realized if all accounts receivable were collected (the reserve for unrealized profit). In this manner, the management of an installment business will receive two operating statements.

The statement on the accrual basis will be similar to the statement received by the management of the "cash" store. This is prepared as follows:

1. Income, costs, and expenses for each department are first ascertained as accurately as possible and those expenses incurred

by more than one department are allocated to the departments involved on an equitable basis.

2. The expenses are then classified in groups depending upon the information wanted.

The operating statement on the installment basis will differ from the operating statement on the accrual basis in the following four ways:

1. It will not be departmentalized.
2. Gross profits will be replaced by profit realized on collections.
3. Bad debts will be reduced because only the cost of the bad debts will be deducted.
4. The loss on repossessions will be reduced (because the unrealized profit would partially offset a loss), or the profit on repossessions will be increased (because part of the unrealized profit would be realized).

Accounts Required

The accounts of an installment business are similar to the accounts of any other retail business, with the following exceptions: (1) allocation of collections to the year of sale, (2) realized profit or loss on repossessions, (3) cost of bad debts, and (4) reserve for unrealized profits.

Unrealized Profit by Departments

This account is composed of the following:

1. An analysis and summary of total sales made by each department.
2. An analysis and summary of sales returned to each department, which is deducted from the total sales in order to obtain the net sales.
3. Cost of goods sold analyzed as to departments. This is usually determined in one of two manners depending upon the type of business. One method used is the determination of the cost of each item sold, classified, and summarized by departments. The other is the use of inventories, which call for the analysis and summary of purchases by departments and the determination of inventories classified in the same manner.

The resultant figure which represents gross profit on sales in a cash business is credited on the books of an installment business to a Reserve for Unrealized Profit.

Realized Profit

Three methods generally used for determining the realized profit follow:

1. Accounts receivable are segregated according to the year of sale. Cash collections and bad debts are determined by analyzing these accounts.
2. Cash collections are analyzed daily as to the year of the sale and proved against the total cash collected for such year.
3. The balances in the individual customer's accounts are aged as to the year of sale and the reserve for unrealized profit computed therefrom. The difference between the reserve for unrerealized profit at the beginning of the year, adjusted for bad debts and repossessions, and the reserve at the end of the year represents realized profit.

In order to ascertain the earned profit included in collections, it is necessary to determine the gross profit proportion included in sales at the time the sale was made and to apply the percentage derived to the collections made on the accounts receivable originating in that year. Of course, if the realized profit is based upon the difference between the balances in the reserve accounts at the beginning and the end of the year, the percentage of gross profit would be applied to the accounts receivable in order to determine realized profit.

The realized profit when ascertained is charged to the Reserve for Unrealized Profit and credited to the Profit and Loss account.

Bad Debts

Bad debts are segregated on the books according to the date of the sale of merchandise from which the debts originated. Periodically the unrealized profit existing in the bad debt is determined by applying thereto the gross profit percentage for the year of sale and this unrealized profit is deducted from the reserve for unrealized profit. The total of the amounts remaining in the bad debt accounts represents the cost of bad debts for the year.

Profit or Loss on Repossessions

When merchandise is repossessed from the buyer pursuant to the terms of the sales agreement, the merchandise is valued for inventory purposes. The difference between the value so established and

the balance due from the customer is recorded in the account Profit or Loss on Repossessions. Periodically the amount of unrealized profit contained in the account so settled is established and an entry made charging the Reserve for Unrealized Profit and crediting Profit and Loss from Repossessions. The balance in this account at the end of the year represents the income or loss from repossessions.

It should be noted that the installment method of accounting allows losses and profits to fall into the period of collection. For this reason, it is incorrect to anticipate any loss or gain by making provision for the loss on bad debts, for the loss or gain on repossessions or for collection expenses.

JOURNAL ENTRIES

The following summary journal entries, graphically presented in Figure I, set forth the operation of installment accounts:

I

Dr—Sales
    Inventory at End of Year
    Cr—Purchases
        Inventory at Beginning of Year
        Gross Profit on Sales

This entry closes the elements of sales and cost of sales and the resultant balance represents the gross profit on sales.

II

Dr—Gross Profit on Sales
    Cr—Reserve for Unrealized Profit

As the theory of installment accounting recognizes profit as earned only on the basis of collections, gross profit on sales is closed to the reserve for unrealized profit in the above entry.

III

Dr—Reserve for Unrealized Profit
    Cr—Profit or Loss

Collections are analyzed and the profit included therein transferred from the reserve for unrealized profit to profit and loss.

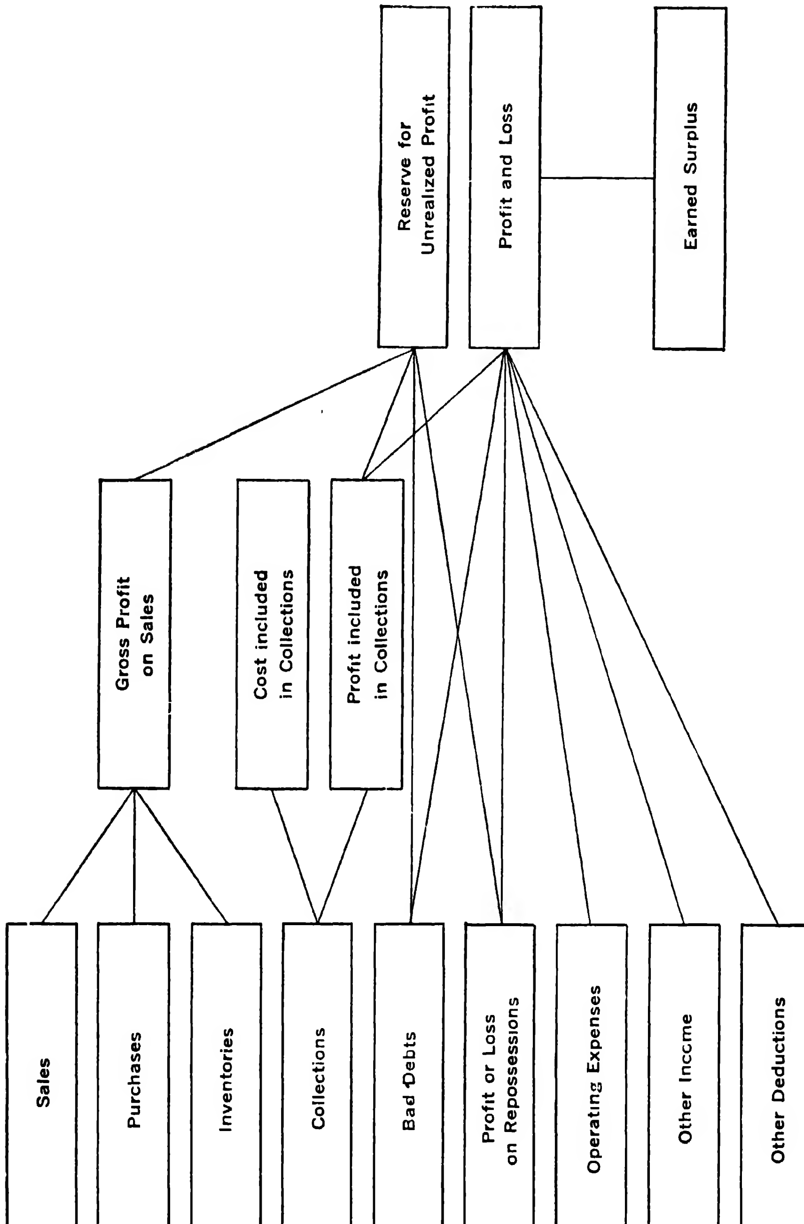
Reserve for Unrealized Profit
Profit and Loss
Earned Surplus
Gross Profit on Sales
Cost included in Collections
Profit included in Collections
Sales
Purchases
Inventories
Collections
Bad Debts
Profit or Loss on Repossessions
Operating Expenses
Other Income
Other Deductions

Figure 1.

IV

Dr—Profit and Loss
    Reserve for Unrealized Profit
    Cr—Bad Debts

Bad debts are analyzed and the amount of unrealized profit contained therein closed to the reserve for unrealized profit. The balance is closed to profit and loss.

V

Dr—Profit and Loss
    Reserve for Unrealized Profit
    Cr—Loss on Repossessions

Assuming a loss on repossessions, the accounts closed by the repossession of merchandise are analyzed and the unearned profit contained therein closed to the Preserve for Unrealized Profit. The balance is closed to Profit and Loss.

VI

Dr—Profit and Loss
    Other Income
    Cr—Operating Expenses
        Other Deductions

The other items pertaining to the determination of the net profit of the business are then closed to Profit and Loss.

VII

Dr—Profit and Loss
    Cr—Earned Surplus

The net profit is then closed to Earned Surplus.

Financial Statements

Operating Statement of an Installment Sales Business

Gross Profit Accrual Basis: Departments

Sales
    Less: Returns and Allowances
        Net Sales
Cost of Sales:
    Inventories at Beginning
    Purchases
    Freight In
        Total Merchandise Available for Sale
    Inventories at End
        Cost of Sales
            Gross Profit on Sales

On Sales Of	Accounts Receivable Collected	Gross Profit Percentage	Realized Profit
1941			
1940			
1939			
1938			
Total Realized Profit			

It should be noted that cash sales are treated as accounts receivable fully collected in the current year.

Forfeited deposits are income in the year forfeited.

Balance Sheet

Assets

Current Assets:
- Cash in Banks
- Cash on Hand
- Marketable Securities (at Cost)
- Accounts Receivable—Sundry
- Accounts Receivable—Installment
  - Less: Reserve for Unrealized Profit
- Inventories (at the lower of cost or market)
  - Total Current Assets

Prepaid Expenses

Fixed Assets:
- Furniture and Fixtures } Less Reserves
- Land and Buildings }
- Good Will
  - Total Fixed Assets
  - Total Assets

Liabilities and Capital

Current Liabilities:
- Notes Payable
- Accounts Payable
- Other Accruals
- Tax Provisions
  - Total Current Liabilities

Long Term Indebtedness

Capital Stock

Capital Surplus

Earned Surplus

Total Liabilities and Capital

Only the following assets require special treatment on the balance sheet of an installment business:

Installment Accounts Receivable—Where the installment method

of accounting is used, it is necessary to exclude the unrealized profit from the accounts receivable for balance sheet purposes.

No provision is made for bad debts but the value of the accounts as stated in the balance sheet will be the net value after removing therefrom accounts determined to be uncollectable.

In those cases where terms are extended for a long period it is preferable to show the installment accounts receivable under a separate heading rather than to include these among the current assets.

It should be noted that in most cases installment accounts receivable are partially secured, as title to the merchandise sold does not pass until the debt created is fully paid.

Inventories—Although, strictly speaking, title to merchandise sold on the installment basis does not pass until the merchandise has been fully paid for by the customer, it is not usual to include the merchandise sold in inventory.

The methods used for controlling, taking, and pricing of merchandise in an installment business do not differ from the methods used in other retail establishments.

Bookkeeping Methods

The chief problem in the bookkeeping for an installment business is the posting of the individual accounts receivable and the customers own record.

Where records are kept manually (as contrasted with machine methods), it is difficult and expensive to keep the accounts posted currently and it is also difficult to keep the customer's book in agreement with the office account. The usual procedure is to keep some type of daily cash record into which the receipt would be entered at the same time the entry was made upon the customer's book. Register receipts are proved against the daily record and the information contained in the daily records is then posted to the office account. Charges to the account are made from the stub of the sales check.

The machine method of keeping installment accounts offers many advantages. Some of these are outlined as follows:

1. Unchangeable, printed figures and an automatic computation of balances entered simultaneously on the customer's book and the office account have definite advantages.

2. Records need not be transcribed, thereby eliminating the possibility of errors in transcription.

3. Because of the automatic features of the machine, totals are accumulated and analyzed for proof purposes. It is possible to prove each day's work and therefore errors are more easily detected.

4. It is a method of keeping the accounts current without spending a great deal of time and effort.

The type of machine in general use is the multi-register machine (the number of registers depending upon the amount and type of information needed) which will, in one operation, print the transaction on the customer's book, the office record, and a control sheet.

The records kept by an installment business are the same as those kept by other retail businesses. Transactions are usually posted from the books of original entry to the following:

The General Ledger controls all other ledgers and records; contains records of assets, liabilities, capital, surplus, income and expenses.

Accounts Receivable Records contain the detailed record of transactions with each individual customer.

Inventory Ledgers contain details of merchandise on hand. These are generally kept in one of three ways—at retail, at cost, or per unit.

Fixed Assets generally contain the detail of furniture and fixtures, land and buildings, and the applicable depreciation reserves.

The Creditors' Record is a cross-index file of vouchers paid or payable to each creditor if the voucher system is used, or detailed record of all transactions with creditors if the accounts payable method is used.

Payroll Records furnish all information necessary to conform with current payroll laws and all information needed by the employer for references.

INCOME TAXES AND PROTECTION OF RECORDS

Income Taxes—The authority for filing income tax returns on the installment basis is found in Section 44, subsection (a), of the Internal Revenue Code: "a person who regularly sells or otherwise disposes of personal property on the installment plan may return as income therefrom in any taxable year that proportion of the

installment payments actually received in that year which the gross profit realized or to be realized when the payment is completed, bears to the total contract price."

The same section also states that "If a taxpayer, entitled to the benefits of subsection (a), elects for any taxable year to report his net income on the installment basis, then in computing his income for the year of change or any subsequent year, amounts actually received during any such year on account of sales or other dispositions of property made in any prior year shall not be excluded."

Protection of Accounts Receivable—As the individual record of each customer's account, where such accounts are posted by machine, represents the only record of the amount due from that customer and as generally the installment accounts receivable represent the major asset of an installment business, it is necessary to take a great deal of precaution in protecting these records.

The records should be kept in fireproof vaults. The management can insure itself against losses occasioned by destruction of the accounts receivable cards. At present a number of merchants are minimizing the danger of possible loss by photographing each account monthly on automatic photographing machines and are filing the film so obtained in a vault away from the building in which the cards are housed.

ACCOUNTING FOR INSURANCE COMPANIES

By

J. B. C. Woods *

Brief Description of Business

The business of insurance in the United States is regulated by state laws which extend to the various classes of insurance and under which stock and mutual companies are organized and do business. The principal kinds of insurance companies are life, fire, casualty and marine, with casualty companies writing the greatest variety of policies.

The emphasis in this chapter is on stock casualty companies under the laws of the State of New York. A description of the accounts of such a company affords an example from which to proceed to the consideration of the accounts of other kinds of insurance companies.

From the point of view of policyholders, a casualty company accepts premiums and underwrites risks by writing policies for one or more of various kinds of risks classified in the annual statement as accident, health, fidelity, surety, plate glass, burglary and theft, steam boiler, machinery, auto property damage, auto collision, and property damage, collision other than auto, liability (including auto liability), and workmen's compensation.

From the point of view of the stockholders, a casualty company is a special type of investment business. Many companies make little or no profit on underwriting over a period of years, but derive net income from the investment of funds received as premiums on policies written. This aspect of the business cannot be ignored and should not be confused with the mere holding of funds for safekeeping and to cover loss claims.

Capital, surplus, and contingency reserves are sources of funds for investment. In addition, insurance companies accumulate funds for investment by reason of the reserves for losses or loss reserves.

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In the case of life insurance companies the valuation reserves (corresponding to loss reserves) are naturally large. In the case of casualty insurance companies and to a lesser extent marine insurance companies, loss reserves are relatively large because the nature of the risks covered results in claims not readily determinable for settlement. On the other hand, most fire losses are determined and settled promptly. Fire, casualty, and marine insurance companies also derive funds for investment from reserves for unexpired premiums, especially large in the case of 5-year fire policies.

In the case of the larger insurance companies the investment of funds thus received from policyholders is an economic fact of national significance. In the case of every company, assuming due attention is paid to sound underwriting and economical operation, investment is a prime factor in the profit-making function of the business.

In the State of New York, the insurance law as codified in 1939 regulates insurance companies and insurance business in general, including agents, brokers, and adjusters. All of the leading American insurance companies operate in the State of New York, and hence are subject to its laws, and in other states where they are subject to similar laws. Provisions of the law which directly or indirectly affect the accounts of insurance companies, especially casualty insurance companies, include those relating to the annual statement; organization, licensing and corporate procedure of insurers; assets and investments; the insurance contract, including reinsurance; rates and rating organizations; organziation and financial requirements; deposits with superintendent of insurance; declaration and payment of dividends; and loss and loss expense reserves.

Regulations for the annual statement, including prescribed methods of valuation of investments, are issued annually.

The accounts of any business are related to the trade practices of its industry. In the case of insurance companies, in addition to traditions, there are provisions of law which affect almost every function and financial transaction.

Theory of Accounts

The form of the annual statement of insurers, which is to be filed on or before March 1 showing the condition of the company on December 31 next preceding, is the controlling factor in the determination of the theory of accounting followed by insurance companies. The law provides that "such statement shall be in such form and shall contain such matters as the superintendent shall prescribe."

In order to meet the current reporting requirements of the annual statements, most companies keep their books on the basis of cash receipts and disbursements, modified to the written basis for insurance premiums, namely, premiums received adjusted for those in course of collection. For the annual statement, but not always in the general ledger, there are included accruals for liabilities such as reserves for losses and loss expenses, deferred credit for unearned premiums, commissions due and accrued, and expenses and taxes due and accrued.

Ledger assets, consist chiefly of real estate (less encumbrances), mortgage loans receivable, stocks, bonds, cash, deposits, and gross premiums in course of collection. These are supplemented in the annual statement by the addition of nonledger assets, such as interest and rents due and accrued. These include also the amounts by which the market values of real estate and stocks exceed the book values, and by which either the market values or amortized or investment values of bonds exceed the book values.

The total of gross assets (ledger assets plus nonledger assets) is reduced by the deduction of assets not admitted. This category embraces such items as past-due premiums and past-due interest receivable, and the amounts by which the book values of real estate, stocks and bonds exceed their market (or amortized or investment) values.

The foregoing brief description of the statement which corresponds to the balance sheet of an insurance company (particularly a casualty insurance company) indicates the theory of accounting necessary to meet reporting requirements. It should be noted that important factors in the financial position, such as reserves for losses and unearned premiums and the equivalent of reserves (or appreciation) for fluctuation in investment values, are taken into

account annually not by book entries but by memoranda included in the statement of assets and liabilities.

It follows that the theory of the annual statement is not historical cost or going-concern value, but approaches liquidating value, even investments in real estate being inventoried at market value rather than shown at cost less reserve for depreciation of improvements.

ACCOUNTS AND NONLEDGER DATA REQUIRED

Ledger Accounts

The ledger accounts of an insurance company are written up from cash records and the journalizing of premiums written.

The asset accounts are those required for the ledger assets appearing in the statement of assets and liabilities in the annual statement.

The account for real estate (less encumbrances) may show only the literal cash outlay, no entry being made for mortgages payable except as paid. A subsidiary record, apart from containing a description of the property, would contain a memorandum of the encumbrances.

Mortgage loans receivable and stocks and bonds are carried at cost and there are the usual accounts for cash and cash deposits.

The control account for premiums receivable introduces an accrual element into the ledger, the contra entries for which are credits to premiums received accounts, with an account for each kind of insurance written.

Liability accounts are not generally used except for borrowed money, the entry for which originates as a cash receipt.

The account for capital stock is of the usual nature.

The account for surplus may be quite unusual in that it is not generally adjusted for net income or net loss (or increase or decrease in surplus) as determined on the underwriting and investment exhibits of the annual statement. This situation arises because, as already explained, the ledger does not include accounts for most accruals the principal items of which are reserves for losses and unearned premiums. Hence, the balance of the book surplus is equal to the statement surplus plus reserves and accruals less nonledger assets. Many companies make a practice of carrying statement surplus at a round figure constant over a period of years,

using a contingency reserve (partly a surplus reserve and partly an estimate to cover real contingencies, such as deficiencies in loss reserves) for the purpose of taking up net income or net loss and dividends paid.

Income accounts include premiums received (that is, charged to agents, brokers, and the insured), written up as already mentioned, and interest and dividends received, posted from cash receipts records.

Losses and expenses are included in ledger accounts for losses paid on each kind of risk and expenses classified to include commissions, salaries, traveling expenses, office rent (including occupancy of own buildings), taxes of various kinds, legal expenses, printing and stationery, postage, insurance, furniture and fixtures (usually the cost thereof, for this is a nonadmitted asset), books and periodicals, and property and investment expenses.

Nonledger Data

Quite apart from statistical records required for the control of underwriting operations and for detailed reports, the accounts would be incomplete without memorandum records relating to the accrual factors, the most important of which are unpaid losses and commissions and deferred credit for unearned premiums.

1. The record of losses shows for each claim, the data as to accident or other basis of the claim, the estimated amount payable revised periodically to give effect to circumstances which may develop during the course of the determination of the final amount payable, and the amounts paid. The total of the estimated amounts remaining to be paid on claims at any date constitutes the reserve on the "per case" basis. Estimates may be in error by reason of an incorrect interpretation of data on file and by reason of the lapse of time between the date of the accident and the date of the receipt of reports by the insurance company. The first type of error is related particularly to young and undeveloped claims, and the second, of course, refers to unreported claims.

In spite of ordinary conservative estimating the tendency is for the per case basis to be understated, much as a specific reserve for bad and doubtful accounts may be too low because the statistical situation is not taken into account. Statistically it is not sufficient to include estimates for all reported cases on the basis of data on

file, or even to add an estimate to cover young, undeveloped, and unreported cases.

The deficiency in the per case basis of estimating losses may be offset by a general weighting of the reserve or by a statistical determination based on experience. One kind of statistical data for the correction of the reserve is to be found in a study of the course of the loss ratios by policy years. Such data almost invariably show that ordinary conservative estimating on the per case basis results in a loss ratio for a policy year which increases annually as the cases for that policy year are settled.

The loss ratio is the percentage which the total of losses, allocated (or direct) claim expenses and unallocated (or indirect) claim expenses paid and estimated as payable, bear to the earned premiums. The statistically observed lag in this annually determined ratio measures the amount for which provision should be made at the end of each year in addition to the per case basis estimate of losses.

Apart from the correction which may be provided by a general or statistical weighting of the reserves for losses, there is a statutory basis for the statistical correction of loss reserves for liability and workmen's compensation lines. Such an adjustment is afforded by Schedule P of the annual statement which applies minimum standard estimates for liability cases in suit, and, for the three most recent policy years, provides, as an alternative to the per case basis, a minimum of 60 or 65 per cent of earned premiums for liability and workmen's compensation losses respectively.

General or statistically determined weighting is necessary for good accounting in those instances in which the per case basis and the statutory 60 or 65 per cent have both proved to be inadequate on the basis of experience.

The reference to unallocated expenses or indirect expenses requires amplification. This is the expense of the claim department and is apportioned to all lines. For the liability and workmen's compensation lines, it is further apportioned to policy years of these lines on the basis of prescribed formulas providing for charging specific percentages to each of the five or four most recent policy years for liability and workmen's compensation respectively. Although the annual statement does not provide separately and specifically for the item, there should be included in the reserves for

losses a provision for future unallocated expenses. It is the failure to provide for this item (or to rely on the 60 or 65 per cent formula to cover it) which accounts in some measure for the observed lag in loss ratios of policy years.

Valuation reserves of life insurance companies are on an actuarial basis. Loss reserves of fire and marine insurance companies are estimates for specific claims, for unreported claims, and for the expense of adjusting all such claims.

2. The records for accumulating data on premiums and commissions present no problems other than those encountered in businesses with a large volume of recurring transactions. Tabulating machines are ordinarily required.

Premiums are taken into income and deferred as unearned by prorating premiums written in each month, using the middle of the month as the average date.

In this connection it should be noted that commissions are absorbed as incurred and are not prorated over the life of the policy, whereas premiums are taken into underwriting income on the basis of time expiration.

Operating Statements

The operating statement of a casualty insurance company is the underwriting and investment exhibit of the annual statement showing the sources of the increase and decrease in surplus during the year. The exhibit is divided into three parts, namely, the underwriting exhibit, the investment exhibit, and the miscellaneous exhibit.

It follows statements of capital stock, income and disbursements, and assets and liabilities.

A careful reading of these statements, together with the explanation of the theory of accounts given above, serves to indicate the chief peculiarities of accounting for insurance companies. The form of statements is traditional with roots in the distant past when the accrual method of accounting was effected through single entry bookkeeping with inventories of assets and liabilities applied.

The form of operating statement prescribed in the annual statement is reproduced at the end of this chapter.

Note that the investment exhibit includes, not only income and expenses, but also profits and losses on investments both from sales

and exchanges and from the application of year-end valuations. In forms prescribed for filing with the Securities and Exchange Commission only realized gains and losses appear in the income statement and fluctuations in the values of investments are shown in the securities section of the statement of surplus. The Securities and Exchange Commission's statement of surplus also includes such items as dividends which are entered through surplus in the case of other businesses.

The basis for many items in the underwriting and investment exhibit is to be found in the statements of capital stock and income and disbursements prescribed in the annual statement, as reproduced herein.

Balance Sheet

The prescribed form of statement of assets and liabilities of the annual statement is also attached.

Bear in mind that the statement of assets and liabilities is not per the books. It is not on a going-concern basis, but approaches the liquidating value basis. The most important liability, reserve for losses, is an inventory of estimated losses payable, corrected by a statutory formula and according to good practice also by an interpretation of experience. It is not usually shown in the general ledger.

I—CAPITAL STOCK

	DOLLARS	CENTS
1. Amount of capital paid up December 31 of current year . . . . $______		
2. Amount of ledger assets (as per balance), December 31 of previous year . . . . $______		
3. ____crease of paid up capital during the year		
Extended at		

II—INCOME

	(1) *Gross premiums, including policy and membership fees, written and renewed during the year per col. 2, VI, page 7	(2) DEDUCT Return premiums	(3) Reinsurance (written basis)	(4) Total deductions	(5) Net premiums written
4. Accident					
5. Health					
6. Non-cancellable accident and health					
7. Auto liability (a)					
8. Liability other than auto (a)					
9. Workmen's compensation (b)					
10. Fidelity.					
11. Surety					
12. Glass					
13. Burglary and theft .					
14. Boiler					
15. Machinery . . .					
16. Auto property damage .					
17. Auto collision . .					
18. Property damage and collision other than auto . . .					
19. (c)______					
20. **Totals					

21. Inspections . . . .

22. Gross interest on mortgage loans, per Schedule B, less $______ accrued interest on mortgages acquired during the year . . . . $______

23. Gross interest on collateral loans, per Schedule C . . . . ______

24. Gross interest on bonds $______ and dividends on stocks $______ less $______ accrued interest on bonds acquired during the year, per Schedule D . . ______

25. Gross interest on deposits in trust companies and banks, per Schedule N . . . . ____

26. Gross interest from all other sources (give items and amounts):

27. ____

28. ____

29. Gross income from company's property, including $____ for company's occupancy of its own building, less $____ interest on incumbrances, per Schedule A . . . . ____

30. Total interest, dividends and real estate income . . . . . .

31. From other sources (give items and amounts):

32. ____ $____

33. ____

34. Increase in liabilities during the year on account of reinsurance treaties . . . .

35. Remittances from home office to United States branch (gross) . . . .

36. †Borrowed money gross $____ less amount repaid $____ . . . .

37. From agents' balances previously charged off . . . .

38. Gross profit on sale or maturity of ledger assets, viz:
   (a) Real estate, per Schedule A. . . . . $____
   (b) Bonds, per Schedule D. . . . . ____
   (c) Stocks, per Schedule D. . . . . ____
   (d) ____

39. Gross increase by adjustment in book value of ledger assets, viz:
   (a) Real estate, per Schedule A. . . . . $____
   (b) Bonds, per Schedule D (including $____ for accrual of disc ____ . . . . . ____
   (c) Stocks, per Schedule D . . . . ____
   (d) ____

40. Total Income . . . .

41. ____ Amount carried forward

*By gross premiums is meant the aggregate of all the premiums written in the policies or renewals issued during the year. Are they so returned in this statement? Answer: ____

**To be supported by distribution of premiums by states as per Schedule T

(a) Including net premiums on policies issued in previous years. Indicate refunds by minus sign.

1940 $____; 1939, $____; 1938 $____

1937, $____; 1936, $____, prior to 1936, $____

(b) Including net premiums on policies issued in previous years. Indicate refunds by minus sign.

1940, $____; 1939, $____; 1938, $____

1937, $____; 1936, $____; prior to 1936, $____

†Company is at liberty to state transaction briefly, so that explanation can be carried as footnote in department report

(c) Enter line of business.

(Write or stamp name of Company)

	DOLLARS	CENTS
Amount brought forward,		

III—DISBURSEMENTS

	(1) Gross amount paid for losses	(2) DEDUCT: Gross salvage (Sched. H)	(3) DEDUCT: Reinsurance	(4) DEDUCT: Total deduction	(5) Net amount paid policyholders for losses
1. Accident					
2. Health					
3. Non-cancellable accident and health					
4. Auto liability					
5. Liability other than auto					
6. Workmen's compensation					
7. Fidelity					
8. Surety					
9. Glass					
10. Burglary and theft					
11. Boiler					
12 Machinery					
13. Auto property damage					
14. Auto collision					
15. Property damage and collision other than auto					
16. (a)					
17. TOTALS					

18. Investigation and adjustment of claims, viz:
19. Accident $______; Health $______; Non-cancellable accident and health $______;
20. Auto liability $______; Liability other than auto $______; Workmen's compensation $______;
21. Fidelity $______; Surety $______; Glass $______;
22. Burglary and theft $______; Boiler $______; Machinery $______;
23. Auto property damage $______; Auto collision $______; Property damage and collision other than auto $______;
24. (a)______ $______;
25. Policy and membership fees retained by agents $______
26. Commissions or brokerage, less amount received on return premiums and reinsurance for the following classes
27. Accident $______; Health $______; Non-cancellable accident and health $______;
28. Auto liability $______; Liability other than auto $______; Workmen's compensation $______;
29. Fidelity $______; Surety $______; Glass $______;
30. Burglary and theft $______; Boiler $______; Machinery $______;
31. Auto property damage $______; Auto collision $______; Property damage and collision other than auto $______;
32. (a)______ $______;
33. Salaries and all other compensation of officers, directors, trustees and home office employees.

33(a). Pension, retirement and other similar benefits . . . .
34. Home office travel . . . .
35. Salaries, traveling and all other expenses of branch offices and agents, excluding commissions .
36. Salaries, traveling and all other expenses of payroll auditors . . . .
37. Inspections, including accident prevention $________ ; medical examiners' fees and salaries $________
38. Rents, including $________ for company's occupancy of its own buildings . . . . .
39. General office maintenance and expense . . . .
40. Taxes, licenses and fees:
   (a) State taxes on premiums . . . . $________
   (b) Insurance department . . . . ________
   (c) Other state taxes, including $________ social security . . . . ________
   (d) Federal, including $________ social security . . . . ________
   (e) All other (except on real estate) . . . . ________
41. Legal expenses $________; advertising $________; printing and stationery $________
42. Postage, telegraph, telephone, exchange and express $________; insurance $________
43. Furniture and equipment $________; books, newspapers and periodicals $________
44. Bureau and association dues and assessments . . . .
45. Miscellaneous underwriting expense (itemize) ________
46. ________
47. ________
48. Real estate: (a) repairs and expenses $________; (b) taxes $________ . . . . .
49. Miscellaneous investment expense (itemize) ________ $________
50. ________
51. Stockholders for dividends (amount declared during the year, cash $________; stock $________) . . . .
52. Policyholders for dividends, less $________ dividends received from reinsuring companies . . . .
53. Other disbursements (itemize) ________
54. ________
55. Decrease in liabilities during the year on account of reinsurance treaties . . . .
56. Remittances to home office from United States branch (gross) . . . .
57. Borrowed money repaid gross $________ less amount borrowed $________ . . . .
58. Interest on borrowed money . . . .
59. Agents' balances charged off . . . .
60. Gross loss on sale or maturity of ledger assets, viz.
   (a) Real estate, per Schedule A . . . . $________
   (b) Bonds, per Schedule D . . . . ________
   (c) Stocks, per Schedule D . . . . ________
   (d) ________
61. Gross decrease, by adjustment, in book value of ledger assets, viz:
   (a) Real estate, per Schedule A . . . . $________
   (b) Bonds, per Schedule D (including $________ for amortization of premiums) . . . . ________
   (c) Stocks, per Schedule D . . . . ________
   (d) ________
62. **Total Disbursements** . . . .
63. BALANCE . . . .

(a) Enter line of business.

IV—LEDGER ASSETS

		(1) On policies or renewals effective on or after October 1 of current year	(2) On policies or renewals effective prior to October 1 of current year	DOLLARS	CENTS	DOLLARS	CENTS
1.	Book value of real estate (less $ ______ incumbrances), per Schedule A						
2.	Mortgage loans on real estate per Schedule B, first Liens $ ______						
	other than first ______						
3.	Loans secured by pledge of bonds, stocks or other collateral per Schedule C						
4.	Book value of bonds, $ ______, and						
	stocks, $ ______, per Schedule D						
5.	Cash in company's office		$				
6.	Deposits in trust companies and banks not on interest, per Schedule N						
7.	Deposits in trust companies and banks on interest, per Schedule N						
8.	Gross premiums, less return premiums and reinsurance, in course of collection, viz:						
9.	Accident	$	$				
10.	Health						
11.	Non-cancellable accident and health						
12.	Auto liability						
13.	Liability other than auto						
14.	Workmen's compensation						
15.	Fidelity						
16.	Surety						
17.	Glass						
18.	Burglary and theft						
19.	Boiler						
20.	Machinery						
21.	Auto property damage						
22.	Auto collision						
23.	Property damage and collision other than auto						
24.	(a) ______						
25.	TOTALS	$	$				
26.	Bills receivable						
27.	Other ledger assets, viz:						
28.	______		$				
29.	______						
30.	______						
31.	______						
32.	**Ledger Assets, as per Balance on page 3**						

NON-LEDGER ASSETS

33. Gross interest due, $______ and accrued, $______ on mortgages, per Schedule B . . ______
34. Gross interest due, $______ and accrued, $______ on collateral loans, per Schedule C, Part 1 . ______
35. Gross interest due, $______ and accrued, $______ on bonds, not in default, per Schedule D, Part 1 ______
36. Gross interest due, $______ and accrued $______ on other assets (give items and amounts): . ______
37. ______
38. Gross rents and interest due, $______ and accrued, $______ on company's property or lease ______
39. Market value of real estate over book value, per Schedule A . . . . ______
40. *Market / Amortized or investment } value (not including interest in Item 35) of bonds over book value, per Schedule D . . . . ______
40A. Market value of stocks over book value, per Schedule D . . . . ______
41. Other non-ledger assets, viz:
42. ______ $______
43. ______ ______
44. Gross Assets . . . . ______

DEDUCT ASSETS NOT ADMITTED

45 Company's stock owned, $______; loans on, $______ $______
46 Supplies, printed matter and stationery . . . . ______
47. Furniture, equipment and safes . . . . ______
48. Gross premiums in course of collection effective prior to October 1 of current year . . . . . ______
49. Bills receivable. . . . . ______
50. Loans on personal security, endorsed or not . . . . ______
51. Deposits in suspended banks, less $______ estimated amount recoverable . . . . . ______
52. Book value of real estate over market value, per Schedule A . . . . ______
53. Book value of bonds over { *market / amortized or investment } value, per Schedule D . . . . ______
53A. Book value of stocks over market value, per Schedule D . . . . ______
53B. Interest due and accrued on mortgage loans (state basis) . . . . ______
53C. ______ ______
54. Other assets not admitted, viz:
55. ______ ______
56. ______ ______
57. ______ ______
58. Total Admitted Assets . . . . ______

(a) Enter line of business.
*Strike out "Market" or "Amortized or investment"

V—LIABILITIES, SURPLUS AND OTHER FUNDS

1. Losses and claims	(1) Adjusted or in process of adjustment	(2) Resisted	(3) Deduct reinsurance per Schedule E column (2)	(4) Net unpaid claims excluding incurred but not reported	(5) Incurred but not reported	(6) Total net unpaid claims except liability and workmen's compensation claims, excluding expenses of investigation and adjustment	DOLLARS	CENTS
2. Accident								
3. Health								
4. (c) Non-cancellable accident and health								
5. Fidelity								
6. Surety								
7. Glass								
8. Burglary and theft								
9. Boiler								
10. Machinery								
11. Auto property damage								
12. Auto collision								
13. Property damage and coll. other than auto								
14. (a) ______								
15. TOTALS								

16. Reserve for unpaid liability losses . . . $ ________
and workmen's compensation losses . . . . ________ $ ________

17. Reserve for credit losses on policies expiring in October, November and December of current year, being fifty per cent of $________, gross premiums received on said policies, less $________ paid on losses under said policies . . . . ________

18. Reserve for accrued losses on credit policies in force December 31 of current year, being fifty per cent of $________ earned premiums on said policies, less $________ paid on losses under said policies ________

19. Total unpaid claims . . . .

20. Estimated expenses of investigation and adjustment of unpaid claims

21. Accident $________; Health $________; Non-cancellable accident and health $________; Fidelity $________;

22. Surety $________; Glass $________; Burglary and theft $________; Boiler $________;

23. Machinery $________; Auto prop damage $________; Auto collision $________; Property damage and collision other than auto $________;

24. (b)________ $________; ________ $________; ________ $________; ________ $________;

25 Total unearned premiums as shown by recapitulation, page 7 . . . .

25½ (c) Additional reserve on non-cancellable accident and health policies $ ______ less $ ______ reserve on policies reinsured

26 Commissions, brokerage and other charges due or to become due to agents or brokers on policies effective on or after October 1, of current year, viz

27. Accident $ ______; Health $ ______; Non-cancellable accident and health $ ______; Auto liability $ ______;

28 Liability other than auto $ ______; Workmen's compensation $ ______; Fidelity $ ______, Surety $ ______;

29 Glass $ ______; Burglary and theft $ ______; Boiler $ ______; Machinery $ ______;

30. Auto prop damage $ ______; Auto collision $ ______; Property damage and collision other than auto $ ______; (b) ______ $ ______;

31 Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued . . . .

32 Estimated amount due or accrued for taxes . . . .

33 Dividends declared and unpaid to stockholders, $ ______, to policyholders, $ ______ . . . .

34. Due and to become due for borrowed money . . . .

35. Interest due or accrued including $ ______ on borrowed money . . . .

36. Funds held under reinsurance treaties . . . .

37. Other liabilities, viz:

38. ______ $ ______

39 ______

40. ______

41. ______

42. ______

43. ______

44. ______

45. ______

46. ______

47. ______

48. Total amount of all liabilities, except capital . . . .

49. *Capital paid up . . . . $ ______

50. Surplus over all liabilities . . . . ______

51. Surplus as regards policyholders . . . .

52. Total . . . .

(a) Enter "Credit for policies expiring prior to October of current year)," or other lines of business.
(b) Enter lines of business
(c) State reserve basis and describe methods used
(d) Including $ ______ for present value of life indemnity claims.
*Mutual Companies to enter here the amount of guaranty or other permanently designated funds with appropriate description.

(Write or stamp name of Company)

UNDERWRITING AND INVESTMENT EXHIBIT

Showing the Sources of the Increase and Decrease in Surplus During the Year

UNDERWRITING EXHIBIT				GAIN IN SURPLUS	LOSS IN SURPLUS
PREMIUMS					
1. Total premiums, per item 20, page 2					
2. Add unearned premiums and additional reserve December 31 of previous year, per item 4 of last year's exhibit					
3. Total					
4. Deduct unearned premiums and additional reserve Dec. 31 of current year, per items 25 and 25½, page 5					
5. **Premiums earned during the year**					
LOSSES					
6. Losses paid, per item 17, page 3					
7. Add salvage and reinsurance recoverable December 31 of previous year, per item 9 of last year's exhibit					
8. Total					
9. Deduct salvage and reinsurance recoverable December 31 of current year, per items (a)__________, page 4					
10. Balance					
11. Add unpaid losses December 31 of current year, per item 19, page 5					
12. Total					
13. Deduct unpaid losses December 31 of previous year, per item 11 of last year's exhibit					
14. **Losses incurred during the year**					
LOSS ADJUSTMENT EXPENSES					
15. Loss adjustment expenses paid during the year, per item 24, page 3					
16. Add loss adjustment expenses unpaid December 31 of current year, per item 24, page 5					
17. Total					
18. Deduct loss adjustment expenses unpaid December 31 of previous year, per item 16 of last year's exhibit					
Loss adjustment expenses incurred during the year					

UNDERWRITING EXPENSES

20. (c) Underwriting expenses paid during the year, per disbursement exhibit, page 3
21 (a) Add underwriting expenses unpaid December 31 of current year, per liabilities exhibit, page 5, viz.—
22. Total
23. Deduct underwriting expenses unpaid December 31 of previous year, per item 21 of last year's exhibit
24. **Underwriting expenses incurred during the year**
25. **Underwriting losses and expenses**
26. (b)________ **from underwriting during the year**

UNDERWRITING PROFIT AND LOSS ITEMS

27. Gain from:
28. Inspections, per item 21, page 2
29. Agents' balances previously charged off, per item 37, page 2
30. Other underwriting income, per income exhibit, page 2(a)
31. Total
32. Loss from:
33. Agents' balances charged off, per item 59, page 3
34. Other underwriting disbursements, per disbursement exhibit, page 3, other than losses and expenses, per items 6, 15 and 20 of this exhibit (a)________
35. Total
36. (b)________from items 27 to 35
37. Bills receivable and premiums in course of collection not admitted December 31 of previous year, per item 38 of last year's exhibit $________
38. Bills receivable and premiums in course of collection not admitted December 31 of current year, per items 48 and 49, page 4 $________
39. (b)________from items 37 and 38
40. (b)________ **from profit and loss items**
41. (b)________ **from underwriting and profit and loss items during the year** (carried forward)

(a) Give statement number of each item or portion thereof included herein
(b) Write "Gain" or "Loss".
(c) In order to secure uniformity in the reports of the various companies, all companies are directed to include in this item all disbursements, except payments to policyholders, per item 17, page 3, agents' balances charged off, in item 59, page 3, loss adjustment expenses; repairs, expenses and taxes on real estate, such other taxes and fees as apply to investments and personal property only, dividends to stockholders, loss on sale or maturity and decrease in book value of ledger assets, and such other items, if any, as are known to apply exclusively to the assets of the company, and to deduct from the total of said items as investment expenses one-eighth of one per cent of the mean invested assets, viz: **Real estate owned, mortgage loans, collateral loans and stocks and bonds owned**

INVESTMENT EXHIBIT				Gain in Surplus	Loss in Surplus
42. Brought forward					
INTEREST AND RENTS					
43. Interest, dividends and rents received during the year, per item 30, page 2, less item 58, page 3, and less $________amortization and plus $________accrual					
44. Deduct interest, dividends and rents due and accrued December 31 of previous year, per item 46 of last year's exhibit					
45. Balance					
46. Add interest, dividends and rents due and accrued December 31 of current year, per item 38, page 4, less the sum of item 35, page 5, and item 53B, page 4 .					
47. Add interest and rents paid in advance December 31 of previous year, per item 49 of last year's exhibit .					
48. Total					
49. Deduct interest and rents paid in advance December 31 of current year, per liability exhibit, page 5 . .					
50. Gross interest, dividends and rents earned during the year					
INVESTMENT EXPENSES					
51. (c) Investment expenses paid during the year, per disbursement exhibit, page 3 (Attach exhibit)________					
52. Deduct investment expenses unpaid December 31 of previous year, per item 54 of last year's exhibit .					
53. Balance					
54. (a) Add investment expenses unpaid December 31 of current year, per liabilities exhibit, page 5, viz.—____					
55 Investment expenses incurred during the year .					
56. Net interest, dividends and rents earned during the year					
PROFIT ON INVESTMENTS					
57. Gain from sale of ledger assets, per item 38, page 2 .					
58. Gain from increase in book value of ledger assets, other than for accruals, per item 39, page 2 . .					
59. Gain from change in difference between book and market value during the year					
60. Gain from other investments, viz—(Give items and amounts)____________					
61. Profit on investments during the year . . .					

LOSS ON INVESTMENTS

62. Loss from sale of ledger assets, per item 60, page 3
63. Loss from decrease in book value of ledger assets, other than for amortization, per item 61, page 3
64. Loss from change in difference between book and market value during the year.
65. Loss from other investments, viz.—(Give items and amounts)
66. **Loss on investments during the year**
67. (b) .... **from investment profit and loss items**
68. (b)........ **from investments during the year**
69. Total gains and losses from underwriting and investments

MISCELLANEOUS EXHIBIT

	Gain in Surplus	Loss in Surplus
70. Dividends declared to stockholders during the year		
71. Dividends declared to policyholders during the year		
72. Remittances from home office (gross)		
73. Remittances to home office (gross)		
74. ....crease in special reserves		
75. (a)........		
76.		
77.		
78. **Net (b)........from items 70-77**		
79. **Total gains and losses in surplus during the year**		
80. **Surplus December 31 of previous year, per item 81 of last year's exhibit**		
81. **Surplus December 31 of current year, per item 50, page 5**		
82. ....**crease in surplus during the year** (enter in column to balance)		
83. **Totals**		

84. **Per cent. of losses incurred to premiums earned**........
85. **Per cent. of loss adjustment expenses incurred to premiums earned**........
86. **Per cent. of underwriting expenses incurred to premiums earned**........
87. **Per cent. of investment expenses incurred to gross interest, dividends and rents earned**........

(a) Give statement number of each item or portion thereof included herein.
(b) Write "Gain" or "Loss".
(c) Include in this item one-eighth of one per cent. of the mean invested assets; repairs, expenses and taxes on real estate; such other taxes and fees as apply to investments and personal property only; and such other items, if any, as are known to apply exclusively to the assets of the company.

ACCOUNTING FOR INTERSTATE MOTOR CARRIERS

By

Joe L. Schmitt, Jr.*

Brief Description of Business

Interstate motor carriers prior to August 9, 1935, were regulated by the various statutes and regulations of the several states in which they operated. After this date all interstate motor carriers became subject to the Motor Carrier Act, passed by the 74th Congress, which replaced the statutory regulations of the several states and set up a nationwide measure to regulate transportation by motor vehicles.

The general objective of any accounting system is to render a complete statement of assets and liabilities and a periodic operating statement, keeping in mind that simplicity and not complexity is the result desired by all executives. However, the usually accepted theory of accounting for profit or loss that will lend itself to the maintenance of cost records as used in industrial cost accounting is not sufficient.

Accounting for interstate motor carriers has essentially two functions; the first is to give statements of the financial condition of the enterprise and of its operations; the second is to give from its cost records the foundation for the rate structure used in the carrier's published tariff.

The basing of rates on actual cost rather than upon estimates is a requirement of the Interstate Commerce Commission and this requirement is definitely based upon the substantiation of rates through the accounting records of the carrier. All rates published in the carrier's tariff must be established as compensatory rates for definite classifications and commodities.

This procedure necessitates a broadening in scope of the carrier's chart of accounts, to establish individual and joint rates, and an

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equitable division thereof as between the carriers participating which will not unduly prefer or prejudice any one of them.

Theory of Accounts

Two methods of maintaining the accounting records may be employed: (1) the general accounting records may be separated from the statistical cost unit, which is kept independently, and (2) the cost records may constitute an integral part of the general accounting system with control of certain operating accounts within the general ledger. In the second method every transaction relating to the operation of automotive equipment is reflected in the accounts of the general ledger.

The chart of general ledger accounts provides for the classification of division branch, or station expense (accounts of the 600 series). This series of accounts in this classification makes it possible to obtain a diversified operating statement by vehicles, routes, or divisions. From the analysis of operating costs by routes or divisions, the basic cost factor is established as used in the carrier's rate structure. It can be truthfully said that motor carriers become insolvent more often because they do not know what is the basic factor in their rate tables than from any other cause.

There is a very definite demarcation between truck accounting for industrial or merchandising firms and interstate motor carriers. The mode of operation is distinctly different. The former renders only a delivery service for its own customers, while the latter acts as a public service carrier, subject to Federal supervision.

Accounts Required

The Motor Carrier Act, as adopted, provides for four classifications of carriers: (1) common carrier, (2) contract carrier, (3) private carrier, and (4) the broker. This classification is subdivided into three other subclassifications based upon the gross revenue of the Carrier. This discussion is concerned only with the first three groups enumerated above.

The following chart of general ledger accounts, Exhibit A, is suitable basically for any motor carrier in classes two or three. Carriers coming within the meaning of class one and so designated by the Interstate Commerce Commission, Bureau of Motor Carriers, are compelled to use the uniform system of accounts pre-

scribed by the Interstate Commerce Commission for class one Motor Carriers. The chart of general ledger accounts, presented as Exhibit B, is so arranged according to function as to be easily adapted to the requirements of the uniform system of accounts and the compilation of the carrier's annual report to the Interstate Commerce Commission, Bureau of Motor Carriers.

Exhibit A

Chart of General Ledger Accounts
Class 2 and 3 Motor Carriers

Assets

Current

Cash and Bank
101—Petty Cash
105—Banks
Notes and Freight Bills Receivable
111—Notes Receivable
115—Freight Bills Receivable *
118—Reserve for Bad Debts—Credit
119—Accrued Assets

Inventories
121–130 General Stores (Parts, Tires, etc.)

Fixed Assets

	Reserves for Depreciation
151—Land	xxx
152—Buildings	152–R
153—Leasehold and Improvements	153–R (Amortization)
154—Trucks and Automotive Equipment	154–R
156—Office Furniture and Equipment	156–R
157—Division, Branch, or Station Fixtures and Equipment	157–R
158—Shop Equipment	158–R

Deferred Charges
181—Prepaid Tire Expense
183—Prepaid Truck Repairs
185—Prepaid Truck Insurance
187—Prepaid Truck Taxes and Fees
188—Unexpired Insurance—General
189—Prepaid General Expenses

Other Assets
191—Franchises

* By order of the Interstate Commerce Commission only 15 days from date is allowed for credit extension freight charges.

Liabilities

Current

Notes Payable

201—Notes Payable—Bank
202—Notes Payable—Automotive Equipment

Accounts Payable

211—Accounts Payable
214—C.O.D.'s Payable to Consignors
215—Prepaid Freight Payable to Others
218—Employee Payroll Contributions
 218–1 State Unemployment Insurance
 218–2 Federal Old Age Annuity
219—Employer Payroll Taxes Payable
 219–1 State Unemployment Insurance
 219–2 Federal Unemployment Insurance
 219–3 Federal Old Age Annuity

Accrued Accounts

221—Accrued Payroll
222—Accrued Interest
223—Accrued General Taxes

Fixed Liabilities

231—Conditional Sales Contracts—Automotive Equipment
232—Mortgages

Capital Accounts

(If a Corporation)

251—Capital Stock Preferred—Authorized
252—Capital Stock Preferred—Unissued
255—Capital Stock Common—Authorized
256—Capital Stock Common—Unissued
258—Surplus
260—Profit and Loss

(If a sole proprietorship or partnership)

251 to 254 — Investment Account
255 to 258 — Drawing Account
260—Profit and Loss

Revenues

301—Freight Revenue
302—Passenger Revenue
303—Baggage Revenue
304—Express Revenue
305—Mail Revenue
306—Other Transportation Revenue
307—Fees

(Revenue accounts may be analyzed by vehicles, routes, or divisions.)

EXPENSES

400—*Equipment Operating Expenses*
401—Gasoline
402—Fuel Oil
403—Oil and Lubricants
404—Drivers' Wages
405—Helpers' Wages
406—Payroll Taxes
407—Depreciation
408—Tires
409—Repairs and Replacements
410—Insurance
411—Taxes
412—Licenses
413—Garage Expenses
(If prorated to vehicles or routes)
414—Division, Branch, or Station Expense
(If prorated)
415—General and Administration Expense
(If prorated)
(Equipment Operating Expense accounts may be analyzed by vehicles, routes, or divisions.)
500—*Garage Expense*
501—Wages
502—Payroll Taxes
503—Rent
504—Insurance
505—Depreciation—Shop Equipment
506—Taxes
507—Repairs—Shop Equipment
508—Power, Water, Light, and Heat
520—Garage Expense Prorated—Credit
(Used if Garage Expense is prorated to vehicles, routes, or divisions.)
600—*Division, Branch, or Station Expense*
601—Salaries
602—Commissions
603—Payroll Taxes
604—Depreciation—Fixtures and Equipment
605—Insurance
606—Taxes
607—Stationery and Supplies
608—Postage
609—Telephone and Telegrams
610—Rent
611—Light, Heat, and Water
612—Repairs—Fixtures and Equipment
613—Drivers' Accounts (Leased Equipment only)
620—Division, (Branch or Station) Expense prorated-credit
(Used if Division (Branch or Station) Expense is prorated to vehicles or routes.)

(A separate set of analysis ledger leaves should be used for each division, branch, or station in operation. If desired, subaccounts may be added for prorated Vehicle, Garage, and General Expenses.)

700—*General and Administration Expense*
701—Executive Salaries
702—General Office Salaries
703—Payroll Taxes
704—Depreciation—Office Furniture and Equipment
705—Insurance
706—Taxes
707—Stationery and Office Supplies
708—Postage
709—Telephone and Telegrams
710—Rent
711—Light, Heat, and Water
712—Repairs, Office Furniture, and Equipment
713—Dues and Subscriptions
714—Donations
715—Breakage and Losses
716—Legal
720—General and Administration Expense Prorated-Credit (Used if General and Administration Expense is prorated to vehicles, routes, or divisions.)

Miscellaneous Gains and Losses

Other Income

801—Discounts Earned
802—Interest Earned

Deductions from Income

810—Interest Paid

Exhibit B

Chart of General Ledger Accounts

Class 1 Motor Carriers

Assets

Current Assets

1000 Cash
1020 Working Funds
1040 Special Deposits
1060 Temporary Cash Investments
(a) Pledged
(b) Unpledged
1080 Notes Receivable
1100 Receivables from Associated Companies
1120 Accounts Receivable
1120R Reserve for Uncollectible Accounts
1140 Subscribers to Capital Stock
1160 Interest and Dividends Receivable
1180 Materials and Supplies
1190 Unclassified Current Assets

TANGIBLE PROPERTY

1200 Carrier Operating Property
1200R Reserve for Depreciation and Amortization
1300 Carrier Operating Property
(a) Leased to others
1300R Reserve for Depreciation and Amortization
1400 Noncarrier Operating Property
1400R Reserve for Depreciation and Amortization
1450 Nonoperating Property
1450R Reserve for Depreciation and Amortization

INTANGIBLE PROPERTY

1500 Organization Franchises and Permits
1500R Reserve for Amortization
1550 Other Intangible Property
1550R Reserve for Amortization

INVESTMENT SECURITIES AND ADVANCES

1600 Investments and Advances-Associated Companies
(a) Pledged
(b) Unpledged
1650 Other Investments and Advances
(a) Pledged
(b) Unpledged

SPECIAL FUNDS

1701 Sinking Funds
1751 Depreciation Funds
1781 Miscellaneous Special Funds

DEFERRED CHARGES

1800 Prepayments
1880 Unamortized Discount and Expense
1890 Other Deferred Charges

MISCELLANEOUS DEBIT ITEMS

1900 Discount on Capital Stock
1910 Commission and Expense on Capital Stock

LIABILITIES

CURRENT

2000 Notes Payable
2020 Matured Equipment and Long-Term Obligations
2030 Payable to Associated Companies
2050 Accounts Payable
2070 Wages Payable
2080 Unredeemed Tickets
2090 C.O.D.'s Unremitted
2100 Dividends Declared
2120 Taxes Accrued
2150 Interest Accrued
2160 Matured Interest
2190 Other Current Liabilities

ADVANCES PAYABLE

2200 Advances Payable—Associated Companies
2250 Other Advances Payable

EQUIPMENT AND OTHER LONG-TERM OBLIGATIONS

2300 Equipment Obligations
2300R Reacquired and Nominally Issued
(a) Due within one year
(b) Due after one year
2330 Bonds
2330R Reacquired and Nominally Issued
(a) Due within one year
(b) Due after one year
2360 Other Long-Term Obligations
2360R Reacquired and Nominally Issued
(a) Due within one year
(b) Due after one year

DEFERRED CREDITS

2400 Unamortized Premium on Debt
2450 Other Deferred Credits

RESERVES

2660 Insurance Reserves
2680 Injuries, Loss and Damage Reserves
2690 Other Reserves

CAPITAL STOCK

2700 Preferred Capital Stock
2700R (a) Reacquired
(b) Nominally Issued
2720 Premiums and Assessments on Capital Stock
2730 Capital Stock Subscribed

NONCORPORATE CAPITAL

2800 Sale Proprietorship Capital
2810 Partnership Capital

UNAPPROPRIATED SURPLUS

2900 Unearned Surplus
2930 Earned Surplus

CARRIER OPERATING INCOME

REVENUES

3100 Freight Revenue—Common Carrier
3110 Freight Revenue—Contract Carrier
3200 Passenger Revenue
3210 Special Bus Revenue
3220 Baggage Revenue
3300 Mail Revenue
3400 Express Revenue
3500 Newspaper Revenue

3600 Miscellaneous Station Revenue
3700 Miscellaneous Terminal Revenue
3900 Other Operating Revenue

EXPENSES

4100 Equipment Maintenance and Garage Expense
4110 Supervision of Shop and Garage
4121 Repairs to Shop and Garage Equipment
4122 Operation and Maintenance of Service Equipment
4128 Repairs to Shop and Garage Buildings and Grounds
4131 Light, Heat, Power, and Water for Shops and Garages
4132 Other Shop and Garage Expenses
4140 Repairs to Revenue Equipment
4150 Servicing of Revenue Equipment
4160 Tires and Tubes—Revenue Equipment
4190 Joint Garage Expense—Debit
4196 Joint Garage Expense—Credit
4200—*Transportation Expense*
4210 Supervision of Transportation
4220 Drivers' and Helpers' Wages and Bonuses
4230 Fuel for Revenue Equipment
4240 Oil for Revenue Equipment
4250 Purchased Transportation
4261 Road Expense
4262 Bridge, Tunnel, and Ferry Tolls
4264 Other Transportation Expense
4300—*Terminal Expense*
4311 Terminal Employees
4314 Supplies and Expenses
4319 Repairs to Terminals and Equipment
4330 Commission Agents and Connecting Lines
4360 Collection and Delivery
4370 Local Cartage
4391 Joint Terminal Facilities—Debit
4396 Joint Terminal Facilities—Credit
4400—*Sales, Tariff and Advertising Expense*
4410 Salaries and Expenses
4430 Tariffs and Schedules
4450 Other Sales Expenses
4470 Advertising
4500—*Insurance and Safety Expense*
4510 Salaries and Expenses—Insurance
4520 Public Liability and Property Damage Insurance
4530 Injuries and Damages
4541 Workmen's Compensation—Insurance
4546 Workmen's Compensation—Self-Insurer
4550 Cargo Insurance
4560 Cargo Loss and Damage
4570 Fire and Theft Insurance
4580 Other Insurance
4600—*Administrative and General Expense*

4611 Salaries of General Officers
4612 Expenses of General Officers
4613 Salaries of General Office Employees
4616 Expenses of General Office Employees
4620 Law Expenses
4630 General Office Supplies and Expenses
4640 Communication Service
4651 Outside Auditing Expenses
4652 Employees' Welfare Expenses
4655 Purchasing and Store Expenses
4656 Other General Expenses
4660 Management and Supervision Fees and Expenses
4671 Franchise Requirements—Debit
4672 Franchise Requirements—Credit
4673 Other Regulatory Commission Expenses
4680 Uncollectible Revenues
4691 Joint Operating Expense—Debit
4696 Joint Operating Expense—Credit
5000—*Depreciation Expense*
5011 Depreciation of Structures
5021 Depreciation of Revenue Equipment—Freight
5021 Depreciation of Revenue Equipment—Passenger
5021 Depreciation of Revenue Equipment—Combination
5031 Depreciation of Service Cars and Equipment
5041 Depreciation of Shop and Garage Equipment
5051 Depreciation of Furniture and Office Equipment
5061 Depreciation of Miscellaneous Equipment
5071 Depreciation of Improvements to Lease-hold Property
5081 Depreciation of Undistributed Property
5091 Depreciation Adjustment

AMORTIZATION CHARGEABLE TO OPERATIONS

5100 (a) Amortization of Carrier Operating Property
(b) Property Loss Chargeable to Operations

OPERATING TAXES AND LICENSES

5200 Gasoline, Other Fuel, and Lubricating Oil
5210 Public Utility Taxes and Licenses
5220 Other Licenses
5230 Corporation Taxes
5240 Real Estate and Personal Property Taxes
5250 State Unemployment Taxes
5260 Social Security Taxes
5270 Federal and State Capital Stock and Stock Transfer Taxes
5280 Federal Excise Taxes
5290 Other Taxes

OPERATING RENTS

5310 Equipment Rents
5320 Other Operating Rents
5340 Joint Facility Rents

5350R Equipment Rents
5360R Rent from Owned Land and Structures
5370R Sublease Rental Income
5390R Joint Facility Rents
5400 Rent for Lease of Carrier Property
5500 Income from Lease of Carrier Property
6000 Income from Noncarrier Operations
6100 Income from Nonoperating Property
6200 Interest Income
6300 Dividend Income
6400 Income from Sinking and Other Funds
6500 Other Nonoperating Income

OTHER EXPENSES

7000 Interest on Long Term Obligations
7100 Other Interest Deductions
7200 Taxes Assumed on Interest
7300 Amortization of Debt Discount and Expense
7400R Amortization of Premium on Debt
7500 Other Deductions
8000 Income Taxes
9000 Profit and Loss

Accounting for motor carriers under interstate regulation is highly specialized and requires, not only a knowledge of accounting, but a basic understanding of traffic movement, rate structure of tariffs, and the rules and regulations of the Interstate Commerce Commission, Bureau of Motor Carriers. The accountant or executive before attempting the installation or supervision of a system of accounts in the field of interstate motor carrier transportation must first acquaint himself with the basic factors upon which the accounting structure is built if successful results are to be obtained.

BOOKKEEPING METHODS

The origin of service for a *private carrier,* as a general rule, is either by verbal order or by telephone call. In either case some form of written instruction is prepared and this becomes the basis for what will ultimately be an accounting entry in the records.

The service of an *interstate carrier,* however, begins with the bill of lading, which covers each individual shipment transported. From the bill of lading the freight bill is prepared, usually in seven copies, which contain the following information:

1. Point of origin
2. Point of destination
3. Date of shipment

4. Proper description of commodities or article
5. The weight of commodities or articles
6. The route of movement indicating each carrier participating in the haul and the transfer points through which the shipment moves
7. The rate or rates applicable to the service rendered, including advance charges
8. A statement of the nature and the amount of any charges for special service, such as storage, and the points at which such service was rendered

The seven uses made of the seven bill of ladings are as follows:

1. Receipted upon payment and presented to consignee
2. Remains at office of origin
3. Sent to division making delivery to act as cashier's memo
4. Used as arrival notice
5. Consignee's memo, surrendered at time of delivery
6. Delivery receipt signed by consignee, remaining in office of division making delivery
7. Advance notice sent by origin division to delivery division showing shipment in transit

The individual shipments recorded on freight bills when consolidated into a load for the carrier are recorded on a form known as the manifest, which gives the following information:

1. Manifest number
2. Date
3. Equipment number
4. Drivers
5. Point of origin—destination
6. Freight bill number
7. Consignor
8. Consignee
9. Commodity
10. Number of pieces
11. Weight
12. Freight charges
13. Advances
14. C.O.D. fee
15. Collect for consignor
16. Amount prepaid
17. Prepaid beyond
18. To collect

The manifest is the basic record of all revenues derived, if property is being transported. The office copy is summarized and the totals are then entered in the monthly record of earnings from vehicle service. At the close of each period of business, postings are made in the general ledger.

ACCOUNTING FOR INVESTMENT TRUSTS

By
H. I. PRANKARD, 2ND *

BRIEF DESCRIPTION OF BUSINESS

The term "investment trusts" is generally used to describe any organization whose principal function is the investing of capital contributed by shareholders in the securities of other companies. They are distinguished from holding companies in that the list of portfolio securities held by investment trusts is usually diversified and is selected for production of income and profit without the objective of control and management of underlying companies.

Investment trusts are subject to the provisions of the Investment Company Act of 1940 and to the rules and regulations issued thereunder by the Securities and Exchange Commission.

Investment companies have been defined by the Investment Company Act of 1940 as follows:

1. "Face-amount certificate company" means an investment company which is engaged or proposes to engage in the business of issuing face-amount certificates of the installment type, or which has been engaged in such business and has any such certificate outstanding.
2. "Unit investment trust" means an investment company which (a) is organized under a trust indenture, contract of custodianship or agency, or similar instrument, (b) does not have a board of directors, and (c) issues only redeemable securities, each of which represents an undivided interest in a unit of specified securities; but does not include a voting trust.
3. "Management company" means any investment company other than a face-amount certificate company or a unit investment trust.

Since most of the investment companies currently active fall into the classification of management companies, the discussion of accounting principles and problems which follows will be limited to those of such companies.

The Investment Company Act of 1940 classifies management companies into open-end and closed-end companies as follows:

* Certified Public Accountant of Prankard & Zimmermann, New York City.

1. Open-end company means a management company which is offering for sale or has outstanding any redeemable security of which it is the issuer.
2. Closed-end company means any management company other than an open-end company.

In addition to the foregoing, the Act includes special classifications based upon the investment policies followed by the company.

The activities of closed-end management companies consist principally of the selection of portfolio securities for investment, the collection of income and payment of expenses incidental thereto, and the distribution to stockholders of periodic dividends. Obviously, the investment policies followed by various companies differ widely; some companies maintain a very specialized portfolio restricted to particular industries while others have a flexible investment policy adjustable to changing conditions.

Open-end management companies offer their shares of stock for sale from day to day and offer to redeem their stock from day to day at current offering and redemption prices in effect at the time of sale or redemption. All of these prices are based upon current asset value which at the present time is ordinarily computed twice daily, particularly by those companies whose sponsors are members of the National Association of Security Dealers. Thus it will be seen that open-end companies have all of the problems which confront closed-end companies and, in addition, have the problems resulting from daily purchase and sale of their own securities.

A number of investment companies are unincorporated and operate under trust agreements. The great majority, however, are incorporated and have simple capital structures limited to one class of securities. Some companies, however, have preferred stock issues and a limited number have funded debt. The Investment Company Act of 1940 contains provisions designed to restrict and control the issuance of senior securities by investment companies.

THEORY OF ACCOUNTS

Investment companies follow generally accepted principles of accounting with respect to investments and income therefrom. Securities are generally carried on the books at cost computed on one of several bases discussed in detail below.

Gains and losses from sales of securities are ordinarily deter-

mined on the basis of cost, or, in the case of a quasi-reorganization, on the basis of adjusted book values.

For Federal income tax purposes, investment companies must compute profits or losses from sales of securities on the basis of either the identified cost or the first-in, first-out method of determining cost of securities sold. The identified cost or specific certificate method, which is the prescribed procedure for tax purposes entails the allocation as the cost of a sale of stock of the identified cost of the specific certificates or lots delivered against each sale. In cases where identified costs are not available it is permissible to employ the first-in, first-out method, wherein the cost of the earliest purchase is applied as the cost of the earliest sale. From an accounting standpoint both methods have their weaknesses—under either method it is possible in certain circumstances to realize a profit on a partial sale of a particular issue at a time when there may be an overall loss based on market value in the entire issue. Further, the identified method is susceptible to manipulation, permitting the management to realize a profit or a loss, whichever it chooses in any particular sale at a time when some of the certificates held were purchased above and some below market value at the time of sale.

A third method, considered most desirable from an accounting standpoint, is the average cost method, wherein the cost of all purchases of a particular issue are averaged and the average per-share cost used in determining cost of shares sold. For many reasons, this method is considered most accurate for accounting purposes but since it is not acceptable to the Treasury Department for Federal income tax purposes, the companies using this method for financial statements must maintain auxiliary records of identified cost or first-in, first-out cost. For this reason, and because realized security profits and losses have little significance unless considered in conjunction with unrealized profits or losses, accountants generally consider all three methods to be in conformity with accepted accounting principles.

Some companies provide a reserve from earned surplus for unrealized market depreciation while other companies merely record the amount of appreciation and depreciation without allocating it to any particular surplus account. It is well recognized, however, that cost of securities is of no value in appraising the performance

of a particular investment company so that it is necessary to maintain in the books of account the value of the portfolio based on current closing market quotations through the use of a valuation reserve.

In recording dividend income, investment companies also follow the generally accepted theory that dividends received on stocks held on ex-dividend dates represent income. Stock dividends which are not considered to be income for Federal income tax purposes, are generally not included in the income account.

Open-end investment companies, through their practice of buying and selling their own securities from day to day, have several accounting problems peculiar to themselves.

In the first place, in order to compute the offering and redemption prices accurately, it is necessary that the books of account be maintained on a daily basis. Thus, income, purchases, and sales of portfolio securities, and profits or losses resulting therefrom, and the sales and redemptions of the company's own securities must all be recorded daily. In addition, major expenses and taxes, particularly Federal income taxes, must be computed and recorded daily, as must the market value of portfolio securities.

The second problem confronting open-end investment companies is the devising of a systematic method of determining the per-share net income available for distribution throughout a particular accounting period. Each time the outstanding capital stock is increased by day-to-day sales of additional shares, the per-share amount of accumulated net income is reduced; for example, if a company, at the beginning of a particular period, had 1,000 shares outstanding and in the early days of the period collected income of $50.00 or $0.05 per share and at the end of the period had 2,000 shares outstanding, the $50.00 would be equivalent to only $0.02½ per share. To prevent this result, many companies credit a portion of the proceeds received from the sale of their own capital stock and debit a portion of the amount paid for capital stock reacquired, to the distribution account so that the per-share amount of the funds available for distribution after the sale or reacquisition is the same as it was before. These amounts are frequently referred to as equalization credits or debits.

Tax Problems

Investment companies have important tax advantages. They may be relieved entirely of Federal income tax by operating in conformity with certain rules as defined in the Internal Revenue Code and distributing to stockholders in the form of taxable distributions their entire taxable income. In order to qualify for this special treatment it is necessary that an investment company meet certain requirements, the principal among which are, that at least 95 per cent of its gross income be derived from dividends, interest, and gains from sales of securities, that less than 30 per cent of its gross income be derived from the sale of securities held for less than 3 months, and that not less than 90 per cent of its net income be distributed to shareholders as taxable dividends during the taxable year.

The Code provides that investment companies meeting the requirements may deduct the amount of taxable dividends paid during the year from their net income to determine taxable net income. Thus, if the entire net income were so distributed, there would be no taxable net income.

From the foregoing, it seems that a company that is in a position to meet the requirements set forth in the Code obtains substantial tax benefits from such classification. It is, therefore, important that the records of an investment company be so systematized as to enable the management to be continually on the alert to see that no event occurs which destroys the company's status.

Accounts Required

The accounting system of an investment company should be designed to reveal readily the following information: (1) the net asset value of the stock and (2) the source and the per-share amount of funds available for distribution.

For an open-end company, this information should be available daily in order to compute the price at which the stock is sold and redeemed, and the amount by which the distribution account should be credited or debited with respect to "equalization debits or credits" resulting from sales or redemptions of capital stock.

The accounts which should be included in the general ledger of an investment company are the following (presented in the form of a daily asset value sheet):

Assets			
Investments—at cost			$10,000,000
Appreciation (depreciation) on investments			(2,000,000)
Cash on deposit			150,000
Due from subscribers			75,000
Securities sold (fail to deliver)			100,000
Dividends receivable			50,000
Total			$ 8,375,000
Liabilities			
Accrued expenses and taxes		$ 10,000	
Due for capital stock redeemed		15,000	
Securities purchased (fail to receive)		25,000	50,000
Net Assets			
Capital stock (1,000,000 shares of $.10 par value)		$ 100,000	
Paid-in surplus		9,990,000	
Realized profit (loss) on securities:			
Short-term	$110,000		
Long-term	15,000	125,000	
Appreciation (depreciation) on investments		(2,000,000)	
Distribution account:			
Dividend income	180,000		
Other income	—		
Expenses	(60,000)		
Taxes	(15,000)		
Equalization credits—Net	5,000		
Distribution Account Balance ($.11 per share)		110,000	
Net Assets ($8.325 per share)			$ 8,325,000

Financial Statements

Under the Investment Company Act of 1940, registered investment companies must transmit to their stockholders, at least semi-annually, reports including a balance sheet, a list showing the amounts and values of securities owned, a statement of income, and a statement of surplus. In addition, the report must include a statement setting forth remuneration paid by the company to officers and directors, and to companies with which officers or directors are affiliated, and a statement of the aggregate dollar amounts of purchases and sales of investment securities.

The rules and regulations of the Securities and Exchange Commission under the Investment Company Act state that open-end investment companies may include in periodic reports to stockholders

as the equivalent of the balance sheet and the statement of surplus, the following:

1. A statement of its assets, showing its investments at market value, its liabilities, its net assets, and the number and par or stated value of the shares representing such net assets.

2. A statement of changes in net assets for the period for which the report is made, showing the net assets as at the beginning of the period, and the various credits and debits resulting in the net assets at the end of the period.

3. A statement with respect to the period for which the report is made, and with respect to the three complete fiscal years next preceding the commencement of such period, of the net asset value per share of the reporting company's securities at the beginning and at the end of each such period, and a statement of the dividends declared per share during each such period, together with the amount per share of such dividends declared out of sources other than net income for each such period, excluding from such net income profits or losses realized on the sale of securities or other property.

A number of open-end investment companies are following the policy of including the statement of net assets and the statement of changes in net assets together with certain historical information as to the net asset value per share of their stock and the amounts and sources of their dividends, in periodic reports, rather than the customary balance sheet, and statement of surplus. Since these statements in some respects represent a departure from the usual form of presentation, it might be interesting to examine a typical set of statements prepared in this form.

STATEMENT OF NET ASSETS, DECEMBER 31, 1942

ASSETS	
Securities, at market quotations (cost $31,000,000)	$25,000,000
Cash on demand deposit	1,000,000
Dividends receivable	100,000
Receivable for capital stock sold (in process of delivery)	50,000
Total	$26,150,000
LIABILITIES	
Accrued expenses and taxes (see note)	$ 20,000
Payable for capital stock reacquired (not yet received)	30,000
Total	$ 50,000
Net assets (based on carrying securities at market quotations) equivalent to $10 per share for 2,610,000 shares of $1 par value capital stock outstanding at December 31, 1942	$26,100,000

NOTE: No Federal income tax has been accrued on the basis that the company qualified for special tax treatment under appropriate Sections of the Internal Revenue Code during the year ended December 31, 1940, and distributed all of its net income during such year.

Securities Owned, December 31, 1942

Company	Shares	Market Value
Amerada Corporation	1,000	$ 46,375
American Can Company	2,000	177,000
Commonwealth Edison Co., Etc., etc.	4,300	126,313
Total		$25,000,000

Statement of Income
(Exclusive of Gains or Losses on Securities)
For the Year Ended December 31, 1942

Dividend Income		$ 1,700,000
Expenses:		
Compensation of officers, directors, and members of the advisory board (½ of 1% of the average of the net asset values of the outstanding capital stock on each business day during the year)	$75,000	
Fees paid trust company:		
As custodian	25,000	
As transfer agent and for dividend disbursement	25,000	
Legal fees	10,000	
Auditors' fees	10,000	
Provision for Federal capital stock tax and other taxes	35,000	
Miscellaneous expenses	20,000	200,000
Net Income for Year (Exclusive of gains or losses on securities)		$ 1,500,000

Statement of Changes in Net Assets
For the Year Ended December 31, 1942

Net Assets, December 31, 1941 (including undistributed net income $100,000)	$30,000,000
Credit:	
Net income for year (exclusive of gains or losses on securities)	1,500,000
Charges (in italics):	
Increase in unrealized depreciation of securities owned (less $20,000 net profit from sales of securities on basis of average cost)	(3,500,000)
Cost of capital stock reacquired ($3,000,000), less proceeds from sales of capital stock ($2,500,000)	(500,000)
Dividends paid to stockholders	(1,400,000)
Net Assets, December 31, 1942 (including undistributed net income $200,000)	$26,100,000

( ) Denotes deduction.

It will be noted that there is a statement of net assets on December 31, 1942 in place of the usual balance sheet. The presentation of the assets and liabilities is in the usual form. The total of the liabilities is deducted from the total of the assets to arrive at the net assets of the company and the number of shares and par value of capital stock outstanding as well as the net asset value per share of outstanding capital stock are shown parenthetically.

No detail is given as to the composition of the net worth of the company and in this respect this statement differs from the ordinary balance sheet which would include balances of capital stock account, paid-in surplus, earned surplus, etc.

The statement of income for the year is presented in the usual form except that gains or losses from sales of securities are not included.

The third statement reflects changes in net assets during the year and includes all of the items which increase or decrease the total of capital stock and surplus.

In addition to the foregoing statements, the report would include a supplemental statement containing the additional information required by the Investment Company Act and the rules and regulations of the Securities and Exchange Commission.

Bookkeeping Methods

The bookkeeping systems of investment companies all follow the same general principles. Open-end companies, of course, must organize their books in such a way that daily results are readily obtainable. The books of an open-end company generally include the following records to which entries may be posted daily from books of original entry:

The General Ledger contains the accounts listed on the asset value sheet set forth above.

The Investment Ledger contains details of the portfolio securities with a separate page for each issue showing the number of shares and cost of securities purchased and the dates purchased and the number of shares sold, proceeds and cost of sales, and the dates of sales. This page also shows a cumulative amount of profit and loss from sales of securities (segregated according to short-term and long-term capital gains and losses), the details of which are controlled by the security profit and loss account on the general

ledger. Many companies design their investment ledger in such a way as to include details of dividends and interest earned and collected, and the balance of dividends and interest receivable, the details of which are controlled by the General Ledger account.

The Due from Subscribers account is kept in detail in a subsidiary ledger consisting of uncleared items in the form of copies of confirmations. Another and perhaps simpler method of making this detail available is to indicate the settlement date on sales blotters, the open items on the blotters thus representing the details controlled by the general ledger account.

Ordinarily, the foregoing records will provide the information required. The Expense and Tax accounts in the general ledger are often designed in columnar form indicating expense classifications. Some companies, however, prefer to maintain an expense ledger.

In a properly functioning system of accounts as described briefly above, the general ledger trial balance taken at the close of any particular day readily provides the asset value sheet referred to above.

ACCOUNTING FOR LABOR UNIONS

By
EUGENE P. COLLINS *

BRIEF DESCRIPTION OF BUSINESS

A labor organization, also known as a trade union, is an association or corporation having a membership of persons skilled in some particular occupation, trade or industry, and who ordinarily work for others for wages or salaries.

It has been estimated that there are at least 14½ million members belonging to some 70,000 labor organizations, which would represent about 10% of the population of the United States. In large industrial centers and cities, almost every family may have a union member.

Labor unions have an estimated net worth of about 25 billions, so it is obvious that the need for uniform principles of accounting is great.

Most unions consist of a parent organization, commonly referred to as the "International," and affiliated with it are numerous units in cities, districts, or plants, known as "Locals." Locals obtain their income from membership fees and a pro rata part or "per capita tax" is remitted to the International group. A few Internationals collect the dues directly from the members and remit a portion to its Locals.

International unions are further organized into three large groups.

1. The American Federation of Labor International groups are generally organized on a craft basis, i.e., plumbers, bricklayers, electricians, draftsmen, office workers, musicians, and other crafts or professions. Each city or district may have one or more units or locals for each of the various crafts.

2. The Congress of Industrial Organizations groups are generally organized on an industry-wide basis, such as auto or steel

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manufacturing, where all workers in several plants of a specific company belong to the same bargaining unit.

3. Other groups, such as the United Mine Workers of America, which do not belong to either of the two major groups, are known as independent or unaffiliated groups and may be organized on an industry or a craft basis, and membership may be on a plant, craft or country-wide basis.

Each of the Internationals holds conventions as well as participates in conventions of the major organizations.

There is usually a uniform policy within each of the Internationals as well as some degree of cooperation between all of the major organizations. Occasionally two separate crafts or locals may engage in a dispute over the rights of the other, or rival organizations may engage in a battle for control of a particular plant or area.

The primary purpose of unions is to organize, develop, and maintain a group of capable, skilled members, obtain employment for them in industry, and better the working conditions, wages, and benefits.

Because of the tremendous growth of the unions, especially during World War II, a secondary activity has developed. Many unions had funds for investment and have purchased banks, printing plants, buildings, resorts, rest homes, radio stations, housing, and consumer cooperatives, for their own or their members' use. Unions have also invested funds in stocks, bonds, real estate, hotels, and other commercial enterprises for the sole purpose of making a profit on their investment.

From this description it may be seen that the organization and activities of labor unions are not unlike commercial firms and industry, and thus the solution to the accounting problems for business may also be the solution to the accounting problems of labor unions.

Theory of Accounts

In the beginning of the labor union movement in the 1880's and until as late as 1942, the only requirement for a financial statement, or even a set of books, was the self-imposed requirement of unions themselves. Reports with varying degrees of detail were submitted to the members to account for the funds received and disbursed,

and, in a few cases, a statement of the net assets owned by the organization was included.

As long as expenditures were duly itemized and approved by the membership, financial reports were never considered very important. A weak financial report does not necessarily indicate a weak union, because the unions' most valuable assets are intangible ones not recorded in the accounts. For example, a union may have depleted its assets in an organizing drive to obtain new members in a particular area, or may have financed a long and costly strike against some industry. These activities might leave the union financially poor, but very powerful in terms of future membership fees or in terms of bargaining power.

It was not until 1943 that reports were required by governmental agencies. Since that time the Bureau of Internal Revenue has required statements of incomes and expenditures, and a few states have required financial reports. These were for informational purposes only, since labor organizations were specifically exempt for income tax purposes, including their commercial activities. In 1947 the Bureau of Internal Revenue stiffened the reporting requirements by requesting a statement of net worth from organizations having more than $25,000.00 of gross assets. In 1947, the Labor Management Act, commonly known as the Taft-Hartley Act, required the filing of annual financial returns before unions could obtain rights under the act.

Beginning with 1951, accounting requirements became more complex when a Revenue Act was passed requiring federal income tax to be paid on certain rentals and income from commercial activities received by labor organizations.

Because the need for more adequate accounting has had such a recent beginning and because officers and members have seldom analyzed the reports for management purposes, there has been little or no attempt to formalize accounting principles.

Present-day accounting methods in unions may be compared to those of commercial organizations in the 1920's and 1930's before the advent of complicated payroll, income tax, material, price, and wage regulations.

Since many union accounting records are kept on the cash-basis method or by separate-fund methods, the reports from these records usually understate assets by failure to record capital assets

properly. Liabilities are understated by failure to show mortgages or unpaid expenses. Cash basis reports may be distorted by holding the cash receipts book open beyond the closing date (to avoid suspending members), and delaying payment of bills until after the close of the period (to avoid entry of the expense).

Many reports may reveal in minute detail the expenses of each of many officers for travel and salary, but fail to show a summary of the total expenditures for the organization. Most reports lack a complete statement of net worth, and generally omit any kind of explanatory analysis of the finances, needs, or activities of the organization.

Some of these accounting practices may be attributed to the outmoded requirements of the International or Local by-laws which prevent changes and restrict procedures. The apathy of the membership toward making changes in the accounting methods has retarded progressive officers from suggesting by-law changes, because it is a long and difficult task to get new by-laws approved unless there is a strong demand for the change. Unions have little need for financial statements for credit purposes or for management uses as long as the unions are growing and there is a large amount of funds from new initiations to make borrowing and careful budgeting unnecessary.

As unions grow in stature and as the sizes of the memberships gradually stabilize, the function of unions will change from a turbulent relation with industry to that of a service organization. Then the need for unions to budget expenditures to current dues incomes and to provide for replacement of capital items, such as buildings and equipment, will require intelligent use of their accounting records for management and budget purposes.

Independent public accountants are employed by a large majority of the unions, especially the larger ones, to make audits and prepare reports. However, because of the lack of uniform statements of generally accepted accounting principles, the accountants have simply noted their exceptions, as compared to commercial accounting, and have placed more emphasis on consistency from year to year than on the adequacy of the reports.

Unions' accounts could be maintained in the same manner as commercial firms with the addition of a few specialized accounts peculiar to unions only.

However, there are important deviations from accepted commercial practice which are commonly found in unions; and, even in the deviations, an area of disagreement exists. These three areas are:

1. The cash basis versus the accrual basis.
2. The "Fund" method of accounting.
3. Accounting for property.

1. Cash or Accrual Basis. In commercial accounting the cash basis means that incomes are recorded when received in cash and expenditures recorded when paid, although it is usually confined to those organizations having no receivables or inventories.

The accrual method records incomes when receivable and expenses when incurred regardless of when the cash is received or paid.

Expenditures for property or long-term assets are capitalized and depreciated over their useful life under either method.

In union terminology however, in addition to the ordinary meaning, the cash basis usually means that the property assets are not capitalized, but charged to expenditures when purchased and no depreciation is computed. This will be discussed in a subsequent section.

In the accrual method, accounts payable and mortgages may be properly accrued, but dues receivable from members may not be accrued and capital assets may or may not be capitalized.

Labor organizations customarily do not carry as an asset any member's account for currently due or past-due membership fees. Dues are payable monthly or quarterly and are usually received in the month for which the fees are due or within the following month. Almost all organizations have a sixty- to ninety-day payment period and, if the fees are not paid within that time, the member is suspended and loses his rights of membership. From month to month, it is impossible to know whether an individual member will pay his dues or not, even though he might be a member of long standing. If the dues are accrued as an asset each month, these accrued items will have to be charged either to bad debts or against the income accounts if the member does not pay his dues and is suspended. As a result, two periods of operation and two statements of financial condition are distorted—first by showing a receivable and income

in one period, and by deducting the receivable as a loss in a future period.

Technically, the past dues are collectible under the basis of a contract entered into when the member joined. From a practical standpoint, the small amount of the dues makes them uncollectible. If shown on the balance sheet at all, the receivable is certainly not considered to be a current account receivable, especially if thirty days past the normal paying period or if the member has left his listed place of employment or residence.

During the time when most members are paying only a current month's dues, a few individuals will have paid a quarter or perhaps a year in advance. With the accrual basis, the advance portion of the dues would be shown on the balance sheet as a deferred income.

In these cases also, it may be said that, in paying dues in advance, the member has, in effect, agreed to become a member for the period for which he is paying and therefore would have no recourse to recover the amounts paid.

The chief objection to an accrual of dues is not the accounting principle, but the amount of detail work involved. However, the task is no greater than that being met efficiently by utility companies and others with thousands of small accounts.

The proper accrual of dues would establish better internal control and facilitate auditing, but it is the author's opinion that, unless adequate mechanical and accounting equipment is used to insure up-to-date and accurate posting, accrual should not be attempted. Due to the similarity of amounts, errors are very difficult to localize with hand-posted methods.

In the case of Internationals receiving per capita payments from Locals, it is impossible to know what amount is accruable until the report is received the following month. Since some Locals may be two or three months late, it is difficult to prepare timely statements, so almost all Internationals do not accrue income from Locals.

The accrual of accounts payable, however, does not involve such practical difficulties and is recommended, so that members may know the total expenditures incurred during each period and the amount of liability at the end of the period.

Since most unions pay bills promptly, the liability is generally

small, but in the case of larger unions, the amount may be more substantial and, with an adequate system of accounts, there is no reason not to accrue accounts payable.

2. Fund Accounting. A fund in union terminology differs from the common commercial usage in that fund in a union means not only a separate cash fund, but a separate set of books for the accounting of the fund, whereas business accounting only provides a separate account for the fund among the regular accounts.

The methods used in fund accounting in unions are very similar to fund accounting used in national, state, and local public accounts or institutions, such as libraries and universities.

Most unions, however, do not follow the usual fund method of setting up the budget for the year by recording the estimated revenues and authorized expenditures. In many cases, it is impossible to determine in advance either the income or the expenditure, so that the fund accounting is confined to recording actual transactions as they occur.

Usually, all the dues and membership incomes are deposited into a general fund and, as the need for various activities arises, the members authorize the expenditure of a certain sum of money for a specific purpose, i.e.: a convention fund, a strike fund, an insurance fund, a social fund, a death benefit fund, or a building fund. These appropriations are transferred to a separate bank account, and expenditures are made by the committee responsible for the activities of the fund. When the fund is spent, it is necessary to report on the disposition of the fund to the members and, if the activities of the fund are continuing, obtain a new appropriation unless a standing appropriation has been authorized. Some funds are replenished by a prorata share of dues being deposited directly into the fund, by-passing the general fund. In this manner, without any elaborate accounting records, the members can control the amount of the expenditures on specific activities, or apportion the income to the various activities.

Although there is a valuable purpose in the use of separate funds for specific purposes, the reports prepared from each of these separate sets of accounts are confusing, since a statement of receipts and disbursements includes details of money transferred from one fund to another. It is impossible to ascertain the net receipts and

disbursements unless a consolidated fund statement is prepared and these fund transfers eliminated.

However, if the fund method is misused, the consolidated fund statement does not usually show a true picture of each fund, because a specific fund may run "dry" and money may be "borrowed" from another fund, with these transfers often becoming permanent without the membership realizing it. Oftentimes, the basis for maintaining the fund was never on a sound basis in the first place, and these loans defeat the very reason for the fund, namely, the control of the amount of the expenditure.

When fund statements are prepared, it is recommended that a "net worth" statement of each of the funds be prepared in addition to a statement of receipts and disbursements, so that the loans may be shown and the true net worth or deficit reflected.

Most unions also deviate from governmental accounting by failure to maintain a set of property accounts in which the capital assets purchased by the various funds are recorded as assets. As expenditures for capital assets are made, the property account should be charged and the net worth account credited; otherwise the expenditure will be shown on the statement of disbursements for the fund and permanently lost.

Of course, it is easy with adequate accounting records to make expenditures from one bank account and charge the expenditures to the proper account, but it is realized that many smaller unions do not keep books and prefer to use the fund method.

It is the suggestion of the author that the objectives of the fund method could be met by the use of some budget accounting principles similar to those used in governmental accounting in connection with a single, general-fund accounting system.

When money for a specific purpose is authorized, the actual cash need not be transferred to a separate bank account. The authorized expenditure is set up by crediting a "Reserve for Authorized Expenditure" account and charging an "Appropriated Net Worth" account. The actual payment of the expenditure is then paid out of the general funds and charged to an appropriate operating or asset account. A reversing entry is then made charging the "Reserve for Authorized Expenditure" account and crediting the "Appropriated Net Worth" account for the amount of the ex-

penditure. To determine the amount of unappropriated general funds at any time, it is necessary only to compare the "Reserve for Authorized Expenditure" account to the cash funds on hand. When the total of the authorized expense has been spent, the accounts "Reserve for Authorized Expenditure" and "Appropriated Net Worth" will have no balance, and the actual expenditure will be properly entered in the general-fund accounts. It is possible to earmark funds for any future purpose by this method.

In this manner, only one bank account need be used for all expenditures, fund transfers will be eliminated, the authorized amount will be clearly shown, and after the expenditure has been made the expense will be classified in the proper account for an intelligent financial report.

The only weakness of this method is that funds in excess of authorized amounts might be spent and result in a debit balance in the "Reserve" account. In the separate-fund method, expenditures would have stopped because the bank account would have been exhausted.

If expenditures can be authorized in advance, the procedure of spending and paying for the obligation will be much simplified, in contrast to the practice of incurring the bill first and then obtaining the approval of the members before paying the bill, with the possibility that a bill which has been legally incurred by the officers acting in the due course of business may not be ordered paid by the members.

3. Property Accounts. The definition of property or capital assets, as used in accounting terminology, includes all property which has a useful life of more than one year, and it is customary for such expenditures to be capitalized and depreciated over the useful life of the property.

Labor unions acquire buildings, equipment, automobiles, and other property for their use in operating and for investment purposes. Unions, however, do not necessarily follow customary accounting principles in accounting for property.

To understand the basis for each of the various ways unions account for their property, it is necessary to discuss the methods of acquiring, maintaining, and replacing it.

First of all, unions having single entry records, or those using cash basis or fund accounting, simply charge off property purchased

as a current expenditure, because there is no provision in the records for making any other entry.

Second, unions do not consider buildings or property as assets, because they are not readily available in cash funds to use as operating expenses or strike funds. The strength of the financial statement is based upon the amount of cash available, not the net worth.

Third, if property is recorded on the books, it is necessary to write it off properly over the useful life, and that is principally where the difficulty lies.

Since unions are not primarily engaged in an activity for profit, there is no necessity to provide for depreciation in the costs of operation. Usually the dues collected are only sufficient to pay ordinary operating expenses and, when it becomes necessary to make a capital outlay, it has been customary to obtain the funds from some other source, such as an assessment of the members in addition to their regular fees. If the property is acquired by these means, an additional depreciation charge included in the expense accounts would, in effect, be a double charge on the members for the same facility, since they would be paying an assessment to acquire the property as well as setting aside a portion of their dues to provide for a replacement of the property.

This is the theory used in governmental accounts in which the cost of the property is charged to property accounts which are never relieved by any deduction even though the assets may no longer be in existence. Bonds are issued to pay for the improvement and taxes assessed to pay for the bonds. When the property is replaced the procedure is repeated, since current taxes do not usually provide for property replacement.

Since labor unions follow governmental accounting when they use the fund method, it is logical in their thinking to use the same methods in recording property and not to record depreciation, especially when the property has been acquired by assessment or revenue outside the regular income. Many unions are able to finance the purchase of property from the money received from initiation fees, especially during the periods in which the unions are increasing their membership.

As the memberships of unions stabilize, the need for more budget control to balance expenditures with the ordinary dues incomes of the union without excessive use of assessments will require the in-

clusion of a depreciation charge to provide for the replacement of the property out of the current income.

In the past there has been no necessity to capitalize assets and to compute depreciation for cost or income tax purposes, but, beginning in 1951, provisions of Supplement U of the Internal Revenue Code imposed an income tax on certain rentals and business activities of unions making the computation of depreciation essential on these activities. The requirements in filing other information returns under the Internal Revenue Code and under the Taft-Hartley Act now make the preparation of an adequate balance sheet necessary.

Even though there has been no compulsion in the past, the foregoing factors will result in a gradual change in union accounting toward recording property assets in accordance with business accounting principles.

It is the author's recommendation that, whenever possible, the property assets should be set up and properly depreciated.

The preferred accounting procedure is to capitalize the cost of the items, plus sales taxes, other taxes, transportation, architects' fees, interest and property taxes during development. Sufficient equipment ledgers should be maintained so that the books of account may be reconciled with the actual equipment on hand. This will prevent the unauthorized disposal of equipment by officers or others.

In the case of fund accounting, it is essential to maintain a separate group of property accounts, and it would even be possible to provide for depreciation in this separate group, even though the rest of the funds were reported on a cash received and paid basis.

In the case of unions having a single complete general ledger as suggested in the chart of accounts, it is relatively easy to establish proper property accounting, permitting the inclusion of depreciation in the expenses.

In the case of those with inadequate records, or those solely on a bank deposits and payments basis, the inclusion of a charge for depreciation is not so simple.

One way to include depreciation in the operations, regardless of the method of accounting, is to establish what is known as a funded reserve. The reserve is established by drawing a check from the

general operating fund and charging off the amount of the operating statement as "property replacement expense" (depreciation). This should be a monthly or quarterly payment and, in a sense, might be considered as payment of rent to yourself, thus placing the operations on a basis comparable to another union actually renting property.

When the money is deposited into a savings account, an account called "Reserve for Property Replacement" (actually a "Reserve for Depreciation") is credited and serves as a valuation account on the balance sheet.

Although this procedure does not follow the usual accounting practice for setting up a funded reserve, it is the only way a cash-basis statement can include a periodic charge for depreciation.

At the end of the life of the property, the original investment will have been deposited in a fund, available for the purchase of replacement property.

Other Activities. In recent months there has been a trend for unions' contracts with employers to include some kind of welfare benefits for workers. Employers pay an amount based upon the workers' time, pay, or production, directly into the unions' management for sick, death, old age, vacation, holiday, and other benefits.

Unions may also act as a contractor furnishing labor for a specific job and collecting a fee for the labor. The union then makes wage payments and remits payroll taxes as an employer.

These activities are often handled by a separate affiliated organization or by the fund method. While the basic requirements for recording incomes and disbursements may be fundamental, the subsidiary records for recording each employer's and each employee's affairs can become very complex.

Since these plans vary so much, specific procedures cannot be discussed, but it is suggested that, depending upon the particular operation, comparable commercial procedures be followed.

In conclusion, it is realized that the discussion on theory is not very specific, but, because procedures vary so much, it has been necessary to present the basis for the systems in use and allow each union to use the system best for its needs within the framework of its international constitution and local by-laws until a more uniform method is adopted by all.

Accounts Required

Because of the variations of accounts in use by unions, the following charts of accounts include a comprehensive listing of accounts which may be found in both cash or accrual basis systems. Provision is made for the capitalizing and depreciating of property assets, even though many unions may not follow this procedure.

The charts are arranged primarily for a Local union, although only a slight variation is required for many of the Internationals.

The accounts are intended to cover only the service functions of the union and do not include any commercial enterprises. If the operations include outside activities, reference to the particular business should be made in other sections of this book.

If the recommendations for capitalizing long-term purchases are followed, the information obtained by the use of the following chart of accounts, whether on a cash or accrual basis, will provide comprehensive information for the Labor Standards Act, the requirements of the Internal Revenue and other reporting requirements. It must be considered that, because there are more than 70,000 Internationals and Locals, each having variations in accounting needs, some accounts in use by unions may not be listed on the charts, or the charts will contain unnecessary accounts. The charts should therefore be tailored to meet specific requirements.

The first chart is for a single combined general ledger, with fund accounts presented in a separate section.

General Chart of Accounts

Current Assets
- Cash on hand to be deposited
- Change funds
- Office cash fund
- Checking account, general fund
- Checking account, payroll funds
- Accounts receivable, members
- Accounts receivable, international office
- Accounts receivable, miscellaneous
- Inventory of prepaid dues receipts or stamps

Capital Operating Assets
- Land
- Buildings
- Reserve for depreciation—buildings
- Furniture and fixtures
- Reserve for depreciation—furniture and fixtures

Automobiles
Reserve for depreciation—automobiles

Investment Assets

Savings accounts
Bonds
Stocks
Property (provide necessary detail)

Other Assets

Organization expenses
Deposits on utilities
Prepaid insurance
Inventory of supplies

Liabilities

Accounts payable, operating expenses
Accounts payable, international office
Accounts payable, members
Federal withholding tax payable
Other payroll taxes
Payroll
Notes payable
Mortgage and contracts payable
Funds collected, due others
Reserve for authorized expenditures_ _____fund (separate account for each fund)

Net Worth

Net worth from permanent funds
Net worth from operations
Appropriated net worth

Incomes

Income from members' dues (detail as many classifications as necessary)
Income from initiations (detail as many classifications as necessary)
Income from reinstatements (detail as many classifications as necessary)
Income from fines, assessments, forfeits
Other fees
Donations
Income from payroll service
Sale of subscriptions, books, publications
Interest income
Rental income
Income from insurance premiums
Income from employers' contributions

Per Capita Remittances (or Costs)

Cost of members' dues (detail as many classifications as necessary)
Cost of initiations (detail as many classifications as necessary)
Cost of reinstatements (detail as many classifications as necessary)
Fines, assessments, forfeits (detail as many classifications as necessary)
Other fees (detail as many classifications as necessary)

Expenses

Officers' salaries
Office salaries

Trustees' salaries
Building maintenance salaries
Delegates' salaries
Other salaries
Payroll taxes (detail as required)
Office supplies and expense
Printing and stationery
Stamps
Telephone and telegraph
Rent
Utilities
Repairs and maintenance
Insurance and bonds
Car operation
Travel expense
Officers' expenses
Delegates' expenses
Organizing expense
Negotiating expense
Convention expense
Goodwill expense
Promotional expense
Donations to charitable organizations
Donations to members, sick or out of work receipts
Real and personal property taxes
Per capita dues to local or district councils
Depreciation
Interest
Sick committee expenses
Strike expense
Death benefits
Insurance plan payments

Explanation of Chart of Accounts

Unions may use an account in a manner different from the customary commercial use, and thus the following peculiarities should be noted.

Balance Sheet Accounts

Cash on Hand to Be Deposited. Since the principal activity of the accounting department is a cashiering function, cash procedures should be especially rigid. It is especially recommended that each day's receipts be deposited in full every day without any payouts. This permits some degree of internal control in handling cash funds even in small offices with only one or two persons.

Change Funds. In order to be in a position to deposit the day's receipts, it is necessary to have a sufficient change fund of a definite

amount to make change and cash checks. By having a definite fund, auditing procedures can be facilitated.

Office Cash Fund. Since the daily deposit of receipts and the maintenance of a definite change fund does not provide for any minor cash payouts, a separate cash fund should be on hand to pay for newspapers, freight bills, and items of a few dollars for which a check cannot be conveniently issued. Payout receipts are accumulated until the fund is nearly exhausted, and then a check is cashed and charged to the various expenses for the exact amount of the payouts, thus restoring the cash in the fund to the original amount.

Checking Account—General Fund. Most Locals deposit all funds first into the general checking account and pay the majority of expenditures from this fund.

Checking Account—Payroll Account. Larger organizations with numerous employees may desire a separate account to facilitate issuing special form payroll checks and establish control against forgery, loss, and embezzlement.

Accounts Receivable—Members. See discussion in section on "Theory of Accounts."

Accounts Receivable—International Office. Local unions may have amounts due from Internationals because of overpayments, credits, and cancellations. Since the items are definite in amount, this account should be maintained and reconciled periodically with the International's records.

Accounts Receivable—Miscellaneous. Unions may have amounts receivable from rentals, loans, or other items aside from union activities.

Inventory of Dues Receipts. The International union office may sell prenumbered blank triplicate receipts to the Local union and require the payment of the pro rata part of the dues and the insurance premium for each of the blank receipts furnished. The Local union may issue these receipts at whatever price authorized by the by-laws of the union. The triplicates are sent to the International office after being issued. Since it is necessary for the Local union to have a supply of these receipts on hand at all times, the cost of these receipts are charged into a prepaid asset account until such time as they are issued. They should then be charged to the "Cost of Receipts Issued" account. The prepaid asset account should agree with the total number of unissued blank receipts on

fund and one to accumulate the yearly deficit or surplus from operations, would present a more accurate picture of the net worth on the balance sheet.

Appropriated Net Worth. This is an account with a debit balance which indicates that some of the surplus from operations has been set aside for a specific purpose but has not been spent. See the section on "Reserve for Authorized Expenditures."

The appropriated surplus should be deducted from the "Net Worth from Operations" account on the balance sheet.

Incomes and Expenses

The following description of the income and expense accounts are described on a cash basis method, with the entries originating from the cash book. If the accrual system is used, additional journals would have to be used to set up the accruals as they occur.

Income from Membership Fees (Locals). Depending upon the type of union, there may be several classifications of members, such as mechanics, helpers, and apprentices, each with a different membership fee. In addition to membership classification there may also be different fees for those out of work or sick, or some insurance plan may be in effect for some and not for others. This account should be subdivided into as many accounts as there are different fees.

Income from Initiations and Other Fees (Locals). The fees for initiations, reinstatements, and assessments should be subdivided in a similar manner as the dues receipts.

Income from Memberships (Internationals). Accounts in International offices are usually arranged in a similar manner to those in local offices, except that the basic record may also be arranged by locals so that the activities of each local may be analyzed. If the fees include a portion for an insurance program, the insurance portion of the dues may be separated and entered into a reserve account or separate fund if the International handles its own program, or into a liability account if the fees are to be remitted to an insurance company.

Depending upon the system used by the International, dues receipts may be sold "prepaid" to Locals and entered as income when sold, or locals may remit only the dues paid by members for the

previous month, or a fee based upon the total membership of the Local regardless if the fees were received by the Local or not.

Income from Payroll Service. As described in the "Theory of Accounts," unions may act as an employer and actually pay out the money for the one for whom the work is done. Usually a fee to cover the cost of the payroll taxes and the clerical work involved is charged over the basic labor cost. Any amount over the amount of the payroll taxes and wages paid out would be credited to this account as a miscellaneous income.

Income from Employers. Income from employers for welfare benefits, vacations, and holidays would be credited to a separate income account if the union is going to administer the program.

Remittances (or Costs) for Membership Fees. If the Local reports its membership fees to the International office from month to month based on the number paying or the number of members, then such payment should be charged to sub-accounts, employing the same classification used in recording sales of receipts to the members.

If the Local buys receipts in advance on a prepayment basis, then sub-accounts of this account should be charged monthly with the cost value of the receipts issued for the month and credited to the "Inventory of Dues Receipts."

Cost of Other Membership Fees, Local Unions. Initiations, reinstatements and some other fees are remitted to the International usually the month after the transaction is entered by the Local, and the entry is recorded when the payment is made.

Expenses for Union Activities. Most expense accounts for salaries, utilities, and office operations are comparable to those of commercial organizations. A few accounts which are to be found only in unions are more fully explained in the following discussion.

Delegates' salaries and expenses are incurred when representatives are sent to national or sectional meetings of affiliated organizations. Convention expenses are incurred by the location holding the meeting or may be shared by each of the attending groups.

Organizing expense is incurred during a drive or continuing activity to obtain new members or new bargaining units. These expenses are a part of the regular activities of the union and should not be confused with "Organization Expenses" as used in corporation accounting.

Goodwill and promotional activities include expenditures for various causes, such as contributions to trade schools for educational programs, and for advertisements to support civic, community, or labor activities. The union may sponsor basketball teams, baseball teams, or radio and television programs.

Per capita dues are paid to local, regional, or district "councils" which are groups of various trades, such as the building trades or the metal trades which bring together for closer cooperation several different craft unions.

Sick, death, and insurance benefit programs are varied and may require more sub-accounts to account properly for the expenditure.

Strike expenses are payments to workers called out on strike for living expenses, travel, legal, and other expenses incurred in settling a labor dispute.

Fund Accounts

For those requiring separate fund accounting, the following chart is suggested. Each fund requires a separate set of accounts. Fund accounts may include all or a part of the accounts shown in the general chart of accounts described previously, since the general chart of accounts is simply split into several sets of separate self-balancing ledgers.

Assets
- Cash on hand
- Checking account________fund
- Accounts receivable
- Loans receivable
- Other assets (as required)

Liabilities
- Accounts payable
- Loans payable
- Other liability accounts (as required)

Net Worth
- Net worth from fund source

Incomes
- Income accounts (as required, i.e.; per capita dues or insurance premiums)

Expenses
- Expense accounts (as required, i.e.; office expenses, death benefits paid, etc.)

Property Accounts

The use of fund accounts generally accounts only for the cash funds, and any permanent property assets are charged off as an expenditure and never retained on the books.

The use of a property ledger similar to that used in government accounting will permit the recording of the assets without altering the regular fund accounts.

When using the property accounts, it is necessary to make a separate entry to record the information when the expenditure is made by a fund. For example, the purchase of a building by the building fund is simply shown as a disbursement on the building fund statements. The property is recorded by charging building and crediting net worth in the property ledger.

The estimated depreciation may be charged to the net-worth account and credited to the reserve for depreciation each year, although such an entry may not be shown on any of the fund statements.

If only fund accounts are used, the following additional chart is suggested to record property as discussed in the fund section under "Theory of Accounts."

Assets
- Land
- Buildings, equipment and other property (detail as necessary and provide property ledger if voluminous)
- Reserve for depreciation—property (detail as necessary and provide property ledger if voluminous)

Liabilities
- Mortgages payable

Net Worth Invested in Property
- Net worth invested in property

Operating Statements

The type of operating statements prepared depends upon the choice of the accounting methods. The first series presented is based upon the system where all activities are combined into one ledger and separate funds are not used. For illustration it is assumed that expenditures have been properly capitalized and that depreciation is included in operations.

Only the actual operation of the union itself is included in the statements. If outside activities were engaged in, additional schedules or statements would be prepared, and summary statements of operations and net worth (not shown) would have to be included if the entire activities were to be presented.

The following statements are presented in the first series.

- Statement of Net Worth
- Reconciliation of Net Worth
- Statement of Incomes and Expenditures
- Schedule of Sales
- Schedule of Cost of Receipts Sold

Statement of Net Worth

December 31, 19—

Assets	Detail	Amount
Current Assets		
Cash on hand	$ 10,000.00	
Cash in banks	150,000.00	
Accounts receivable—International or Local accounts	500.00	
Inventory of unissued prepaid dues receipts (schedule)	4,352.50	
Total current assets		$164,852.50
Operating Assets		
Land	$ 10,000.00	
Buildings, less reserve for depreciation	90,000.00	
Furniture and fixtures, less reserve for depreciation	5,000.00	
Automobiles, less reserve for depreciation	2,000.00	
Total operating assets		107,000.00
Investment Assets		
Stocks	$ 5,000.00	
Bonds	100,000.00	
Total investment assets		105,000.00
TOTAL ASSETS		$376,852.50
Liabilities		
Accounts payable (operating expenses)	$ 5,000.00	
Payroll taxes payable	1,000.00	
Accounts payable—International or Local accounts	500.00	
Notes payable—banks	none	
Mortgages payable	none	
Members credit balances	150.00	
Total liabilities		$ 6,650.00
Reserves*		
Reserve for unexpended portion of authorized building expenditure	$ 10,000.00	
Total reserves		10,000.00
Net Worth		
Total net worth	$370,202.50	
Less appropriated net worth*	10,000.00	
Balance of unappropriated net worth		360,202.50
TOTAL LIABILITIES, RESERVES AND NET WORTH		$376,852.50

Reconciliation of Net Worth

Net worth, January 1	$369,347.50
Add increase in net worth per statement of incomes and expenditures	855.00
Net worth, December 31	$370,202.50

* Optional use, see comments in "Theory of Accounts."

STATEMENT OF INCOMES AND EXPENDITURES

Incomes	Details	Amount
Sales of members' dues, initiations, other fees (schedule)		$11,213.00
Cost of sales of members' dues receipts, initiations, other fees (schedule)		7,378.00
Difference is amount retained by local		$ 3,835.00
Expenses		
Officers' salaries	$1,000.00	
Office salaries	500.00	
Payroll taxes	67.50	
Office expense	55.00	
Telephone	12.50	
Utilities	300.00	
Rent	75.00	
Insurance and bonds	150.00	
Car operation	25.00	
Travel	100.00	
Officers' expenses	50.00	
Legal and auditing expenses	25.00	
Repairs and maintenance, building, equipment, etc.	100.00	
Organization expenses	25.00	
Negotiating expenses	25.00	
Delegates' expenses	100.00	
Delegates' salaries	100.00	
Convention expense	50.00	
Real and personal property taxes	10.00	
Members sick or out of work donations	5.00	
Donations to outside organizations	10.00	
Promotional and goodwill expenditures	150.00	
Depreciation	20.00	
Interest	none	
Per capita dues to local or district councils	25.00	
Total expenditures		2,980.00
Difference is excess of incomes over disbursements from membership activities		$ 855.00

Note: Amounts used do not have any particular significance as to amounts or proportion to any actual operation.

SCHEDULE OF COST OF RECEIPTS SOLD*

Item	Cost per Each	Inventory Prepaid Receipts Beginning of Period		Purchased from or Remitted to International		Inventory Prepaid Receipts End of Period		Cost of Receipts Issued During Period	
		Number	Amount	Number	Amount	Number	Amount	Number	Amount
Mechanics' dues receipts	$ 2.00	2,310	$4,620.00	1,150	$2,300.00	1,305	$2,610.00	2,155	$4,310.00
Helpers' dues receipts	1.00	1,150	1,150.00	1,150	1,150.00	1,175	1,175.00	1,125	1,125.00
Apprentices' dues receipts	.50	1,325	662.50	300	150.00	275	137.50	1,350	675.00
Mechanics' out of work receipts	.50	750	375.00	100	50.00	500	250.00	350	175.00
Helpers' out of work receipts	.25	700	175.00	100	25.00	600	150.00	200	50.00
Apprentices' out of work receipts	.10	305	30.50	125	12.50	300	30.00	130	13.00
Mechanics' initiation receipts	10.00			50	500.00			50	500.00
Helpers' initiation receipts	5.00			60	300.00			60	300.00
Apprentices' initiation receipts	2.00			25	50.00			25	50.00
Mechanics' reinstatement receipts	5.00			30	150.00			30	150.00
Helpers' reinstatement receipts	2.00			10	20.00			10	20.00
Apprentices' reinstatement receipts	1.00			10	10.00			10	10.00
Totals		6,540	$7,013.00	3,110	$4,717.50	4,155	$4,352.50	5,495	$7,378.00

* Inventories are necessary only in the case of Locals purchasing dues receipts or stamps in advance from the International. This schedule proves the accountability of every receipt on hand and verifies the sales, purchases, and inventory. The inventories should also agree with those on the balance sheet

This schedule should be expanded to cover all the membership classifications of the union.

SCHEDULE OF SALES

Item	Issue Price Each	Number Sold	Total Issued
Mechanics' dues receipts	$ 2.50	2,155	$ 5,387.50
Helpers' dues receipts	1.50	1,125	1,687.50
Apprentices' dues receipts	1.00	1,350	1,350.00
Mechanics' out of work receipts	1.00	350	350.00
Helpers' out of work receipts	.75	200	150.00
Apprentices' out of work receipts	.60	130	78.00
Mechanics' initiation receipts	20.00	50	1,000.00
Helpers' initiation receipts	10.00	60	600.00
Apprentices' initiation receipts	4.00	25	100.00
Mechanics' reinstatement receipts	10.00	30	300.00
Helpers' reinstatement receipts	4.00	10	40.00
Apprentices' reinstatement receipts	2.00	10	20.00
Fines, assessments and forfeits			150.00
Total Sales		5,495	$11,213.00

The second type of statement is the fund statement which is generally used by the smaller organization having only single entry records, or by many large organizations who deliberately divide their operations by the use of fund accounting so that the true net worth or operations cannot easily be determined.

The usual fund statements show only the cash transactions on the basis of cash received and disbursed, reconciled to the cash account.

A statement prepared on an income and expenditure basis would vary from a cash receipts and disbursements statement, by omitting the beginning and ending cash balances, and by omitting the loans as incomes and expenditures. The use of net-worth statements (illustrated subsequently) would be essential to explain fully the transactions if an income and expenditure statement was prepared.

For illustration purposes, however, only the receipts and disbursements statements are shown. One fund is shown separately in detail, followed by an illustration of all funds in a combined statement.

The following illustrations are given:

Statement of Receipts and Disbursements—Strike Fund
Statement of Receipts and Disbursements—Combined Funds

STATEMENT OF RECEIPTS AND DISBURSEMENTS—STRIKE FUND*

Cash on hand, January 1		$ none
Receipts		
Prorated income from dues	$1,000.00	
Loan from general fund	2,000.00	
Total receipts		3,000.00
Total beginning cash and receipts		$3,000.00
Disbursements		
Pickets' salaries	$1,800.00	
Transportation expenses	100.00	
Conference expenses	50.00	
Printing	50.00	
Legal fees	500.00	
Total disbursements		2,500.00
Cash on hand, December 31		$ 500.00

* Used as an illustration (provide proper detail for each specific fund).

STATEMENT OF RECEIPTS AND DISBURSEMENTS—COMBINED FUNDS

Item	General Fund *	Death Fund *	Strike Fund *	Total All Funds
Cash on hand, January 1	$ 98,000.00	$2,500.00	$ none	$100,500.00
Receipts				
Dues income (prorated to funds according to authorization)	$ 8,000.00	$1,000.00	$1,000.00	$ 10,000.00
Other income (detailed schedules as necessary)	500.00			500.00
Received loans from other funds		1,000.00	2,000.00	3,000.00
Total receipts	$ 8,500.00	$2,000.00	$3,000.00	$ 13,500.00
Total beginning cash and receipts	$106,500.00	$4,500.00	$3,000.00	$114,000.00
Disbursements				
Benefits paid out (detailed schedules as necessary)		$2,000.00	$	$ 2,000.00
Operating expenditures (detailed schedules as necessary)	5,000.00		2,500.00	7,500.00
Loaned to other funds	3,000.00			3,000.00
Total disbursements	$ 8,000.00	$2,000.00	$2,500.00	$ 12,500.00
Cash on hand, December 31	$ 98,500.00	$2,500.00	$ 500.00	$101,500.00

Note: This statement reflects only the total of cash on hand in each fund. See following illustrations for analysis of net worth of each fund.

* These are for purpose of illustration only. In practice the statement should contain every authorized fund.

When money is frequently loaned from one fund to another, it is difficult to determine the true status of the fund from the receipts and disbursements statements alone, unless an additional net-worth statement is prepared showing the accumulated loans made to and from each fund.

STATEMENT OF NET WORTH—COMBINED FUNDS
As of December 31

	General Fund	Death Fund	Strike Fund	Property	Total
Assets					
Cash on hand and in banks	$ 98,500.00	$2,500.00	$ 500.00	$	$101,500.00
Loans made to other funds, current year	3,000.00				3,000.00
Loans made to other funds, prior years	5,000.00				5,000.00
Land, buildings, other capital assets*				100,000.00	100,000.00
Total assets	$106,500.00	$2,500.00	$ 500.00	$100,000.00	$209,500.00
Liabilities					
Loans received from other funds, current years	$	$1,000.00	$2,000.00	$	$ 3,000.00
Loans received from other funds, prior years		5,000.00			5,000.00
Mortgages payable†				5,000.00	5,000.00
Total liabilities	none	$6,000.00	$2,000.00	$ 5,000.00	$ 13,000.00
Net Worth (or deficit)	$106,500.00	($3,500.00)	(1,500.00)	$ 95,000.00	$196,500.00

Note: This statement reflects the current condition of each fund. A deficit in net worth indicates that the expenditures have been in excess of income.

* This account might also include savings bonds, stocks, and other investments.

† The account "mortgages payable" may be used on a cash basis statement when it is desired to show the full value of property being purchased on an installment basis.

The following statements illustrate the prior discussion on property accounting by including a separate column for property owned by all funds in the consolidated-fund statement. The use of the property column will result in the presentation of a total net worth using fund accounting which should agree substantially with the net worth obtained by the use of the single general ledger method, thereby removing the principal objection to the use of the fund method.

The statements are shown on a cash-basis method, although an accrual statement could be prepared by the addition of receivable and payable accounts.

The following illustrations are presented:

Statement of Net Worth—Strike Fund
Statement of Net Worth—Combined Funds

STATEMENT OF NET WORTH—STRIKE FUND

Assets	
Cash on hand and in banks	$ 500.00
Loans to other funds	none
Total assets	$ 500.00
Liabilities	
Loans from other funds	$2,000.00
Total liabilities	$2,000.00
Net worth (or deficit) of fund, December 31	($1,500.00)

BOOKKEEPING METHODS

Due to the rapid rise in the size of both Local and International unions, it is natural to find that unions have outgrown their accounting systems and are struggling along with antiquated dues books, stamp books, hand-written records of various types, check lists, and other methods far outmoded in comparison with the systems found in commercial organizations of similar size.

In smaller Locals especially, many well-meaning and intelligent mechanics and tradesmen have been elected to the office of secretary, having not the slightest knowledge of bookkeeping or business procedures and perhaps having been prevented by regulations from delegating the work to experienced accountants or from making necessary improvements.

There are two major activities in the bookkeeping departments. The first is a cashiering activity of receiving money from mem-

bers either by over the counter cash collections or by mail. These payments must be credited to the members' individual accounts and the required membership report prepared for the International office.

Unions have been slow to adopt mechanical equipment to assist in the cashiering and posting functions and have continued to use many hand-written receipts or "Day" books, copying names from record to record many times.

Many progressive offices, however, have installed commercial cash registering equipment, which will record cash received, validate a receipt, prepare a journal sheet for the day, and post the members' account at the same time. The use of change machines, coin wrapping machines, duplicating receipt registers, and other cashiering equipment used by commercial organizations is well adapted to a union's needs.

Most locals have card files or loose-leaf ledgers containing the members' individual accounts to which are posted the payments. Since most unions do not have a control account and do not accrue the dues in members' accounts, there is practically no proof control over the postings to the accounts. Even if a control were established, it would be difficult to localize omissions or duplications in posting accounts because of the similarity of the amounts to be posted.

The best control, therefore, is the establishment of an efficient recording method. Some offices remove each card from the file when a payment is received, make the posting and balance the cash against all the cards pulled at the end of the day before returning the cards to the file. The mechanical cashiering equipment mentioned previously is especially efficient in posting the accounts since it records the member's account number on the card at the same time the amount is recorded. If the wrong member's card is posted, the number will enable the posting to be transferred to the correct account as soon as it is discovered.

In the case of International unions, the membership records naturally are more voluminous; and, in organizations which offer insurance plans, a detailed history of every member is necessary.

In one method all members from a local union sign membership application cards which are used to prepare lists on which the insurance company extends coverage if qualified under the blanket

group policy. A certificate is then sent to the member. As dues are collected by the Locals from the member (the insurance premium is included in the amount), the prorata share is remitted to the International office together with a list of new, dropped, or transferred members. These changes are then made on the International's and the insurance company's records. As the Local's membership must be reconciled to the previous month, this method provides a reasonably good system, although transfers from Local to Local must be carefully handled if a continuous insurance coverage is to be obtained.

Another system is the use of a detailed list of every member of one Local which has a provision for marking each month's payment, transfer, or termination. New members' names are added to the bottom of the list. Since the additions are placed in alphabetical order only once a year, these lists require a considerable amount of time, especially after numerous changes, to locate and check off the names against the Local's record of payment. The only record the International union has is a carbon copy of these lists. It is very difficult to locate an individual member unless his Local is known.

A more efficient but more detailed method is one where triplicate receipts are issued by the Local when the dues are collected. The original is given to the member, the duplicate is used in the Local union's record and the triplicate is forwarded to the International office where it is posted to the individual's account and any delinquencies may then be deleted from the total membership and the additions reconciled to the initiation records received during the month. Although the triplicate system entails a tremendous posting job by the International union, it has the advantage of creating a master index of the members and, once a member joins, his card remains on file permanently regardless of his location. The International union is able to check on the Local's reporting of initiations, withdrawals, and other information with great accuracy. This system makes it difficult for a Local to collect dues and initiation fees without reporting and remitting the prorata share to the International union.

Other systems are in use where the insurance plan is not available and the Local simply remits on the basis of the count of the membership at the end of each month and may or may not furnish

names of members and the changes each month to the International union.

The second major activity of the bookkeeping department is the "back office" activity of summarizing the receipts, paying the bills, preparing payrolls and reports, and entering the transactions in the ledgers.

These records are not very complicated, since a cash-basis system would require only a cash receipts and disbursements journal in addition to the ledger, with some records for payroll purposes.

The accrual basis would require some additional journals to record the incomes and expenditures, but the cash journal would be very much simplified as a result.

Posting and tabulating machines would be indicated where the volume of work and the complexity of the membership classifications warranted their use.

Large unions may require mechanical equipment for the preparation of employees' payrolls.

ACCOUNTING FOR LAUNDRIES

By

Robert O. Brown*

Brief Description of Business

According to reports of the United States Department of Labor's Bureau of Labor Statistics, more than 350,000 people are employed by some 28,000 laundries throughout the United States. These laundries are engaged in the collection, washing, and finishing of soiled linens and wearing apparel, and returning them to their customers in clean, sanitary condition.

Although this brief description of the functions of the industry may sound simple, actually it is a technical and complicated industry, because so many types of soil, styles, colors, and fabrics are washed and finished in today's laundry.

Among them are such items as bed linens, wearing apparel including shirts, sox, dresses, and underclothes, pillows, blankets, curtains, and the like. Different processes are involved in the laundering and finishing of each of these different types of items.

A tremendous amount of equipment is needed in establishing today's laundry. Heavy investments are necessary for installations to provide hot and cold water (and in many cases water softeners), sewer facilities, and an exceptionally large variety of machinery to finish the various items mentioned above. In addition, a good vehicular fleet, or a well-equipped store, is necessary in order to receive and deliver laundry. Added to all these physical necessities is the need for a fully competent and well-trained staff of personnel for the various phases of the business.

Actually there are various types of power laundries, the most widely known of which is the family laundry. The family laundry now offers many services. Most common among them are:

1. The completely finished bundle in which all items are returned to the customer ready for storing on her linen shelves.
2. The fluff dry, or three-quarters finished, bundle, in which all the flat-

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work—sheets, pillowcases, napkins, handkerchiefs, and similar items—is ironed and the remainder is tumble dried and folded.

3. The dry-fold bundle, in which everything is tumble dried and folded.
4. Damp wash—flatwork ironed, wherein all the flatwork is ironed and the remainder is returned to the customer in a semi-damp condition ready for her to finish.
5. The damp wash bundle, in which all the laundry is returned to the customer in a damp condition ready for ironing.
6. The bundle list price or piece price service.

In addition to the family laundry, there are also so-called hand laundries, which, more often than not, farm-out their work to commercial laundries.

The wholesale or commercial laundry generally picks up work from the hand laundries, dry cleaners, and others; processes it; and delivers it to the retail outlet for finishing and/or distribution to customers.

Linen suppliers, industrial launderers, and diaper services are other types of laundries. This group usually handles such items as diapers, towels, coats, aprons, uniforms, bed linens, and the like. Generally, these companies own the linens and apparel and merely rent them out to users.

The institutional laundry, which is part of an organization, such as a hotel, hospital, or a large manufacturing concern, is still another type.

Often there is considerable overlapping between the various types of organizations. Seldom does a hand laundry do the washing of bundles brought to it. Generally they are processed by either a wholesale laundry or a family laundry. In addition, oftentimes a linen supplier will rely upon a wholesale laundry or a family laundry to process linens for it.

In the case of the family laundry, a route salesman will pick up the soiled bundle at the home of the customer, or the customer will bring it to a store. To it a ticket will be attached bearing such information as the name, address of the customer, and the type of service desired. Brought to the laundry for finishing, the linen is listed or weighed, and opened and separated for washing in the various classifications in which the bundle might be divided.

The charge to the customer is entered on the ticket, and, after processing, a section, copy, or the entire ticket is returned to the customer with the finished laundry. The driver usually collects the charges when he delivers the bundle.

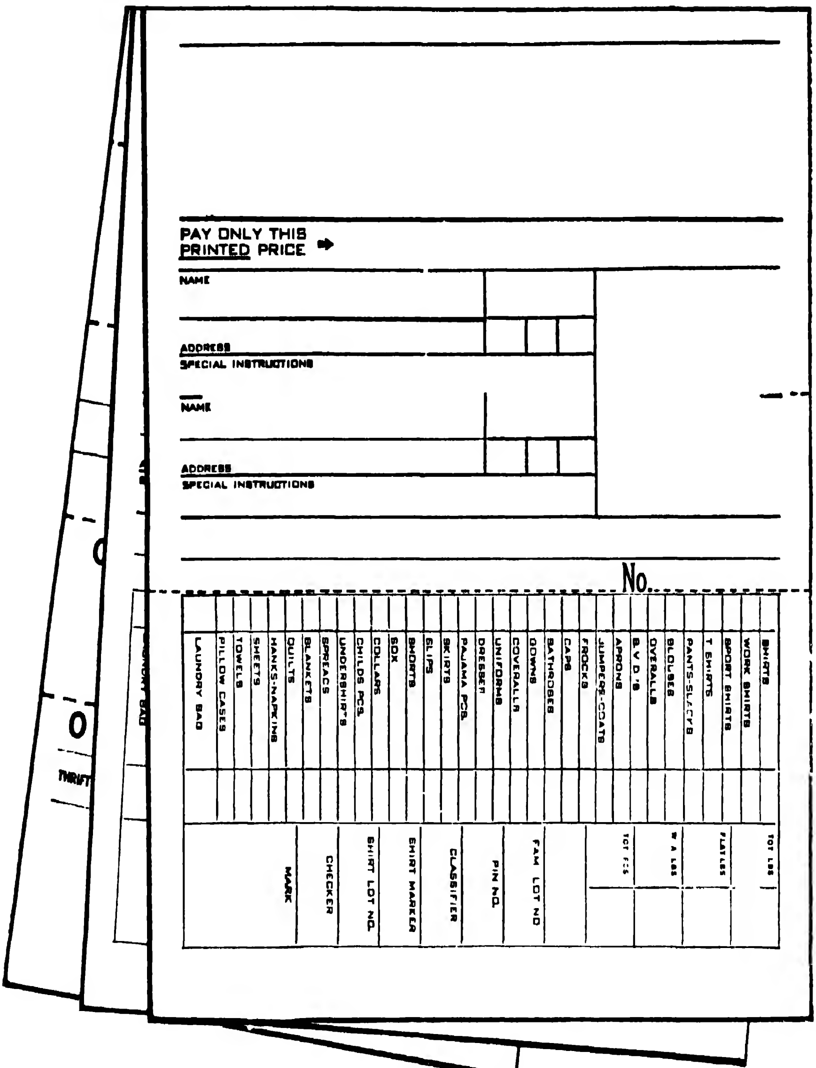
PAY ONLY THIS PRINTED PRICE
NAME
ADDRESS
SPECIAL INSTRUCTIONS
NAME
ADDRESS
SPECIAL INSTRUCTIONS
No.
LAUNDRY BAG
PILLOW CASES
TOWELS
SHEETS
HANKS-NAPKINS
QUILTS
BLANKETS
SPREADS
UNDERSHIRTS
CHILDS PCS.
COLLARS
SOX
SHORTS
SLIPS
SKIRTS
PAJAMA PCS.
DRESSES
UNIFORMS
COVERALLS
GOWNS
BATHROBES
CAPS
FROCKS
JUMPERS-COATS
APRONS
B.V.D.'S
OVERALLS
BLOUSES
PANTS-SLACKS
T SHIRTS
SPORT SHIRTS
WORK SHIRTS
SHIRTS
MARK
CHECKER
SHIRT LOT NO.
SHIRT MARKER
CLASSIFIER
PIN NO.
FAM LOT NO
THRIFT

Exhibit A.

In recent years, the industry has witnessed the growth of "drive-in" and "quick-service" laundries either as branches of larger plants or as independent units. These outlets are often placed in neighborhood shopping centers or on arterial highways and usually offer a fast service if the customer requires it.

Theory of Accounts

Although methods of Accounting for Power Laundries vary with the type of laundering operation, a fundamental record—the laundry ticket—provides the basic data for bookkeeping records.

The laundry ticket serves a single, several, or all of the following purposes, depending upon the needs of the individual operator:

1. Notification to routeman (driver-salesman) to pick up soiled bundles
2. Instruction to plant as to nature of services desired
3. Move order between departments
4. Delivery ticket
5. Routeman's record
6. Customer's invoice
7. Accounts receivable posting media
8. Source of statistical data for sales and production reports
9. Basis for computing commissions
10. Sales control

"Family bundles" provide the major item of laundry volume, and the bookkeeping routine often follows the time established cycle of the home. Accordingly, routemen settle weekly; accounting periods consist of four- or five-week periods; accounts receivable customers may be billed at the close of the accounting period instead of the end of the month, and year-end closings may not coincide with month ends.

In the generally accepted sense, laundries do not carry records to reflect inventories of raw materials, work in process, or finished merchandise, although some establishments attempt to set up figures for such inventories at the close of accounting periods.

Not requiring inventory controls, continuous cost systems based on standards are the exception rather than the rule. Some organizations conduct periodic cost surveys to determine costs of services, but such surveys have little influence over the maintenance of bookkeeping records.

The industry was one of the first to adopt a Uniform Classification of Accounts. In lieu of cost systems, many laundries use a

greater number of detailed income and expense accounts. Income from various services is compared with figures for prior periods, thus affording an analysis of sales trends between services.

Sales trends for an individual plant can readily be compared with trends throughout the country as compiled by trade associations and accountants specializing in the industry.

Since expense accounts are classified by departments as well as by type of expense, the manager is able to make comprehensive comparisons between accounting periods. Of even greater importance are the cost comparisons which can be made between the individual plant and other plants through the use of operating cost percentages. Percentages for comparison of expenses are also available from trade associations and public accounting concerns specializing in laundry practice. Control of this type depends upon a fallible assumption that, if the individual items of expense are low enough to produce a profit, all the services are profitable.

In any event, in the preparation of financial statements it is often advisable to include comparisons between the costs of the individual laundry and the costs of profitable plants. The resulting investigation often discloses improper conditions which, when remedied, correct the excessive cost.

Accounts Required

Due to the overlapping nature of laundry services, it is essential that the account classification be flexible enough for rug cleaning, dry cleaning, diaper service, linen and towel service, and industrial laundry services, as well as the family laundry.

The National Accounting Council of the Textile Maintenance Industries, composed of professional specializing accountants and representatives of the six National Trade Associations of these industries, released in 1951 a Uniform Classification for Textile Maintenance Industries. The following accounts are recommended. Individual account descriptions may be obtained from the American Institute of Laundering, Joliet, Illinois.

Current Assets

101 Cash in Bank
102 Cash—Petty Fund
103 Office Change Fund
104 Routemen's Change Fund
105 U. S. Government Bond

111 Accounts Receivable—Customers
- 111.1 Accounts Receivable—Charge Accounts
- 111.2 Accounts Receivable—C.O.D. Accounts

112 Accounts Receivable—Personal
113 Accounts Receivable—Deposits
114 Accounts Receivable—Storage Unbilled
115 Accounts Receivable—Employees
119 Accounts Receivable—Sundries
121 Notes Receivable
122 Cash Surrender Value—Life Insurance
131 Inventories—Supplies
132 Inventories—Linen in Use
141 Prepaid Insurance
142 Prepaid Taxes
149 Sundry Prepaid Expenses

Fixed Assets

151 Land
152 Buildings
153 Leasehold Improvements
161 Machinery and Equipment
163 Power Plant Equipment
165 Office Equipment
167 Delivery Equipment
169 Store Equipment

Other Assets

171 Investments
181 Deferred Charges
191 Routes (Good Will)

Liabilities

211 Accounts Payable—Trade
212 Accounts Payable—Personal
213 Accounts Payable—Deposits
215 Employee Payroll Deductions
217 Payroll Taxes Withheld and Accrued
- 217.1 Withholding Taxes
- 217.2 Federal Insurance Contributions (Old Age)
- 217.3 Unemployment Insurance

218 Income Taxes Payable
- 218.1 Federal Income Tax Payable
- 218.2 State Income Tax Payable

219 Sundry Accounts Payable
221 Notes Payable
231 Dividend Payable (Used only in Corporations)
241 Accrued Payroll
242 Accrued Taxes
243 Accrued Water
244 Accrued Interest
245 Accrued Rent
247 Accrued Vacation Wages

248 Accrued Income Tax
249 Sundry Accrued Expenses
251 Mortgage Payable
252 Reserve for Depreciation—Buildings
253 Reserve for Depreciation—Leasehold Improvements
261 Reserve for Depreciation—Machinery and Equipment
263 Reserve for Depreciation—Power Plant Equipment
265 Reserve for Depreciation—Office Equipment
267 Reserve for Depreciation—Delivery Equipment
269 Reserve for Depreciation—Store and Call Office Equipment
271 Reserve for Bad Debts
284 Deferred Storage Income

Capital Accounts—Individual or Partnership
301 Capital Account
302 Drawing Account

Capital Accounts—Corporation
310 Capital Stock
    311 Capital Stock—Preferred
    312 Capital Stock—Common
320 Surplus
    321 Capital Surplus
    322 Earned Surplus
400 Profit and Loss

Since the foregoing accounts are basic, additional accounts can be provided by adding decimals to base numbers. The following basic income and expense accounts are recommended for all textile maintenance industries.

1 *Sales*
(Segregations are usually made to show Sales by Industry, i.e., Laundering, Dry Cleaning, etc. and also Sales by Class of Service)

10 *Productive Labor and Outside Work*
    12 Identifying, Assembly and Packaging Labor
    13 Washing and Cleaning Labor
    15 Finishing and Repairing Labor
    18 Outside Work

20 *Productive Supplies*
    22 Identifying and Packaging Supplies
    23 Washing and Cleaning Supplies
    25 Finishing and Repairing Supplies
    28 Linen and/or Diaper Consumption

30 *Power Plant Expense*
    31 Power Plant Wages
    32 Fuel—Power Plant
    33 Repairs and Maintenance—Power Plant
    34 Depreciation—Power Plant
    35 Insurance—Power Plant
    36 Purchased Power and Light

40 *Building Overhead Expense*
- 42 Rent—Building
- 43 Repairs and Maintenance—Building
- 44 Depreciation—Building
- 45 Insurance—Building
- 46 Taxes—Real Estate

50 *Machinery Overhead Expense*
- 51 Maintenance Wages
- 53 Repairs and Maintenance—Machinery and Equipment
- 54 Depreciation—Machinery and Equipment
- 55 Insurance—Machinery and Equipment
- 56 Taxes—Personal Property

60 *Indirect Overhead Expense*
- 61 Indirect Labor
- 62 Superintendence—Plant
- 63 Supplies and Expenses—Indirect
- 65 Compensation and Other Insurance
- 66 Payroll Taxes
- 67 Vacation Wages—Plant

70 *Sales and Distribution Expense*
- 71 Delivery Salaries and Commissions
- 72 Agency Discount and Expense
- 73 Delivery Equipment Operating Expense
- 74 Depreciation—Delivery and Related Equipment
- 75 Liability and Other Insurance (Includes Garage)
- 76 Store Salaries and Expense
- 77 Sales Promotion Salaries
- 78 Sales Promotion Expense
- 79 Claim Adjustments

80 *Office and Administrative Expense*
- 81 Office Salaries
- 82 Office Supplies
- 83 Office Expense
- 84 Depreciation—Office Equipment
- 85 Executive Salaries
- 86 Personnel Relations and Welfare
- 87 Bad Debts
- 88 Shortages and Unclaimed Items
- 89 Other Administrative Expense

90 *Nonoperating Income and Expense Accounts*
- 91 Nonoperating Income
- 92 Dividend Income
- 93 Discount Earned
- 94 Interest Paid
- 95 Nonoperating Expenses
- 96 Adjustments of Previous Periods
- 97 Profit or Loss on Sales of Depreciable Assets
- 98 Income Tax Expense

Accounts are further expanded by the use of decimals as for example:

12 Identifying assembly and packaging labor
- 12.1 Identification labor
- 12.2 Damp assembly labor
- 12.3 Packaging labor
  - 12.31 Flatwork packaging labor
  - 12.32 Tumbling packaging labor

Among the accounts which are peculiar to this industry are:

111.2 Accounts Receivable—C.O.D. Accounts. This somewhat contradictory title arises from the fact that, at the present time, the majority of laundry customers are on a cash basis, but many plants do not require drivers to make daily cash settlements. The balance in this account represents amounts due from routemen. The subsidiary ledger to the control may consist of ledger accounts for each driver or a memoranda file showing amount due. Good practice dictates that such memoranda carry the names and amounts of customers from whom the driver has not been able to collect.

114 Accounts Receivable—Storage Unbilled. This account is used if it is desired to accumulate charges for fur, garment, or rug storage when received to be billed on delivery to customers. The account is used in conjunction with Account 284 Deferred Storage Income.

132 Inventories—Linen in Use. This account is used in linen and diaper service when it is desired to apportion cost of linen over its approximate life.

284 Deferred Storage Income. This account is used in conjunction with account No. 114 when it is desired to allocate income from fur, garment, or rug storage over the storage period in accordance with a predetermined formula.

Bookkeeping Methods

The general ledger and such subsidiary records as the accounts payable ledger, customers' accounts receivable ledger, payroll records, and supplies inventory records ordinarily follow the generally accepted patterns.

Books of original entry do not differ from those used in other businesses, with the exception of the routeman's settlement sheet on which C.O.D. charges are summarized. The design of such records varies according to the method of preparation.

WEEKLY STATEMENT OF SALES

Week Ending__________________194__

Note: Assign a letter to each of your services for tabulating sales credits

Route	C.O.D.	Ledger	Discounts	Comm.	Total Charges	A	B	C	D	E	F	G	H	I	J	Total Credits
Totals																

EXHIBIT B.

Weekly Management Report

__________ Sales, $__________ Week Ended__________________194__

1 DEPARTMENT	2 ACTUAL PAYROLL	3 PAYROLL EXCESS $$ COL 2 − (COL 2 X COL 8)	4 TOTAL UNITS	5 TOTAL OPERATOR HOURS	6 ACTUAL PRODUCTION PER OPER PER HOUR (COL 4 ÷ COL 5)	7 STANDARD PROD PER OPER PER HOUR	8 PERCENTAGE OF EFFICIENCY COL 6 ÷ COL 7	9 ACTUAL COST PER 100 UNITS COL 2 ÷ COL 4 X 100	10 STANDARD COST PER 100 UNITS	11 AVERAGE HOURLY WAGE COL 2 ÷ COL 5
TOTAL			X		X	X	X	X	X	X

NON PRODUCTIVE LABOR	Amount	%
Power Plant Wages		
Indirect Labor		
Superintendence (Plant)		
Routemen's Wages & Comm.		
Route Supervision		
Sales Promotion Salaries		
Office Salaries		
Executive Salaries		
Miscellaneous		
Total Non-Productive Labor		
Total Dry Clean Prod Labor		
TOTAL PAYROLL		

PLANT DATA		Current Week	
Actual Prod Payroll %	Col 2 ÷ Sales		
Standard Prod Payroll %	Col 2—Col 3 / Sales		
Percentage of Efficiency	Std Prod P R % / Act Prod P R %		
Average Hourly Wage	Col 2 ÷ Col 5		
Average Sales per pound	Sales ÷ Total lbs		
Sales per Productive Hr	Sales ÷ Col 5		
Total No Prod. Emp			
Standard Work Hr. Week	Constant		
Standard No Prod. Emp.	Total Hours × % of Eff / Standard Week		
Excess Employes			

OPERATING COMMENTS

Exhibit C.

The weekly statement of sales (Exhibit B), designed for hand preparation, is used to summarize routemen's and customers' accounts receivable charges for control purposes, and an analysis of sales by services is also provided for preparation of management reports.

Exhibit C illustrates a form of weekly management report commonly used for comparing actual production to standard and to obtain nonproductive labor percentages. The reverse side of this form (not illustrated) is used to summarize sales by routemen and class of service as well as complaints.

As in most businesses, the laundry industry has a language of its own. The U. S. Department of Commerce has published a glossary of terms in a publication entitled *Establishing and Operating a Laundry*. This should be helpful to those unfamiliar with the business.

Cost Accounting

Difficulties in cost accounting for laundries arise from the fact that laundry services are sold by the pound or piece, but neither unit is necessarily reflected in plant production records. A further complication arises from the fact that a pound of laundry may contain countless proportions of various types of garments.

The first step in determining laundry costs ordinarily requires a survey. The plant is segregated into departments or "cost centers." Direct labor and direct supplies are accumulated for each center. Commonly accepted cost accounting methods of proration are employed for such expenses as heat, light power, air, building, machinery, and indirect laundering costs.

Having determined all direct and prorated costs for a department or cost center for a given period of time, unit costs per pound, piece, or other unit can be readily established from records of total production for that period.

If unit costs are in pounds and selling prices are in pieces (list price service), it is customary to determine average weights per piece by weight surveys.

If unit costs are in pieces and pricing is in pounds or other unit, it is usually necessary to know the content of a pound of clothing, i.e., the average proportion of wearing apparel, handkerchiefs, socks, and other garments.

The ultimate figure desired is the laundering cost per piece or per average bundle of any particular type of service. Knowing (1) the average weight of various types of linens or of a bundle of a given service, (2) the average mix per bundle, (3) the operations required for each element of the average mix, and (4) unit costs for each operation, this figure is not too difficult to obtain.

Methods of prorating selling, delivery, office, and administrative expense depend upon the nature of the individual business. To the extent that analysis is practicable, the various elements of expense are segregated and added to the total laundering cost of each bundle or piece. Prorations are usually made on the basis of ratios of expenses to sales dollars, number of bundles, pounds, total cost, labor costs, number of pieces, number of packages, number of drivers' stops, extra deliveries, and various combinations of these methods.

Having completed this survey, some organizations go no further; others use the basic data compiled to establish standards for continuous control of cost centers. Very few maintain continuous records of costs of services.

LIMITED PRICE VARIETY STORES

By

W. J. Strachan*

Brief Description of Business

The Limited Price Variety Store is generally considered as one which handles a wide variety of low-priced merchandise. It may consist of a single independent store or a chain of many hundreds of stores.

The majority of the stores are leased, and rent is paid on one of three bases:

1. A fixed rental.
2. A percentage rental.
3. An excess rent based on an excess of sales above a minimum guarantee.

The bulk of the merchandise sold is ordered and received directly from the supplier. Central warehouses are maintained by many companies, but the volume handled varies from as low as 5% to as high as 50% of the merchandise purchased.

Although the store manager is given great latitude in ordering merchandise for his store, he is restricted by main office control. The limitations include ordering from an approved supplier, submitting orders to central office for approval, and maintaining his investment within the limits set by the main office merchandise budgets.

Merchandise is classified by department and is generally displayed and sold according to these classifications. Sales, purchases, inventory, etc., are maintained according to these departments to evaluate the skill of the main office buyers responsible for the merchandise available to the stores.

Upwards of 6,000 items are available in the larger chains, but again the central office decides which may be carried by a given store. The size of the store, sales volume, location, competition,

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and other factors determine the advisability of the items each store is permitted to stock.

Most of the larger chains operate extensive restaurants and cafeterias in the larger stores and maintain a separate crew to supervise their operation.

In addition, concessions, leased departments and demonstrations are installed in the various stores on a percentage of sales basis.

In national chains, although each store operates as a separate unit, it is controlled by the merchandising and financial policies set forth by the central office; and, in some instances, regional offices control a specified number of stores and in turn submit their information to a main or central office.

The business in almost all instances is conducted on a cash basis. Layaways and will-calls, however, are available to the customers. Weekly payments are accepted on any item that a customer selects, and when such payments have been completed the merchandise is delivered to the customer. The merchandise is held aside until payments are complete.

Theory of Accounts

Generally all of the records are kept in the central office. Simple forms submitted by the stores periodically report their operations with regard to cash, sales, merchandising, etc. These forms are consolidated at the central office with other records to give a complete and detailed picture of the entire company and each store as a unit.

The store is permitted to pay a limited amount for local merchandise and expenses, in addition to the preparation and distribution of payrolls.

The amount of cash available is deposited each day in a local bank and a deposit slip forwarded to the central office, as evidence of such deposit. There are many methods of eventually transferring cash to the central office banks. The most effective is the concentration system, whereby the store banks forward to the main depository in the city of the central office an agreed upon amount either semiweekly or weekly.

The central office bank in turn notifies the central office of deposits received each day.

Bank statements are submitted directly to the central office each

month, and all communications from the branch banks are sent directly to the central office.

The bulk of the payments for merchandise, expense, rent, taxes, etc., are made at the central office. Merchandise and expense invoices are submitted to the stores for approval either before or after payment is made to the vendor.

Claims against either carrier or shipper for merchandise discrepancies are prepared by the store and submitted to the central office, where they are deducted from vendor accounts or filed against carriers, as the case may be.

All expenses subject to the store manager's control are known as "Controllable Expenses." The manager generally is advised in some manner whenever such expenses are charged to his store.

Noncontrollable expenses such as rent, taxes, etc., are handled almost entirely by the central office.

As most managers receive their compensation on the basis of their store's profit, the accounting system must be designed so as to give quick and accurate individual store profits as well as an over-all company statement.

In addition to the above, the following information must also be available:

1. Gross profit operations by store and company.
2. Cafeteria results by store and company.
3. Concession income by store and company.
4. Cost of operating central office.
5. Cost of operating warehouse.
6. Analysis of occupancy cost.
7. Analysis of taxes—local, state and federal.
8. Many statistical and merchandise reports not strictly accounting.

Because of the tremendous amount of detail in the larger chains, the compilation of this information is the ideal application of a punch-card system. The use of punch cards varies from the simple installation for the obtaining of statistical information to the complete and elaborate system which includes accounts payable, payroll analysis, and the general and subsidiary ledger distribution.

Accounts Required

The establishment of the necessary accounts is dependent upon the size of the business and the requirements of management. A simple but effective means of setting up a flexible set of accounts is the use of a numbering system for accounts as follows:

Account Number
10000—Assets
20000—Liabilities
30000—Capital and Surplus
40000—Income
50000—Expense

Within each major classification, minor breakdowns may be accomplished as follows:

11000—Current Assets
12000—Other Assets
13000—Fixed Assets
14000—Deferred Assets

With this in mind, the following code of accounts indicates the almost unlimited accounts and classifications available for almost any size of business.

ASSETS

Cash

	11101	Cash in banks—Central Office
	11102	Cash in banks—store banks
	11103	Cash transfers
s	11104	Cash on hand—stores
s	11105	Special cash funds
s	11106	Petty cash fund—Central Office
	11107	U. S. Gov't Tax Savings Notes

Accounts Receivable

sv	11201	Rents receivable
	11202	Reserve for uncollectible rents
	11203	Miscellaneous accounts receivable
s	11204	Carrier claims receivable
	11205	Reserve for carrier claims receivable
	11206	Debit balances in accounts payable
	11207	Reserve for uncollectible debit balance
s	11208	Layaway accounts receivable
	11209	Accrued interest receivable
s	11210.	Insurance claims receivable
s	11211	Suspense
	11212	Exchange
s	11213	Will call accounts receivable

Inventory

	11301	Regular merchandise inventory—End
	11302	Cafeteria inventory—End
	11303	Reserve for shrinkage and markdowns
	11304	Reserve for shrinkage—Warehouse Inventory
	11305	Regular merchandise in transit
	11306	Transfers in transit—Regular
	11307	Transfers in transit—Special
s	11308	Warehouse Inventory—Beginning
s	11309	Warehouse purchases
s	11310	Warehouse shipments
s	11311	Warehouse inventory—End

Deposits and Miscellaneous Receivables

	12101	Deposits with lessors
s	12102	Deposits with utility companies
	12103	Investment securities
	12104	Reserve for investment securities

Investment and Accounts Receivable Subsidiary Companies

12201 Investment in subsidiary companies
12202 Reserve for investment in subsidiary companies

Furniture and Fixtures

s 13101 Furniture and fixtures
s 13102 Reserve for depreciation—Furniture and fixtures
s 13103 Air-conditioning equipment
s 13104 Reserve for depreciation—Air-conditioning equipment
s 13105 Advance to contractors

Real Estate

s 13201 Real estate—Detail
s 13202 Reserve for depreciation of buildings

Improvements to Leased Property

s 13301 Improvement to leased property
s 13302 Reserve for amortization of improvements

Prepaid Taxes and Insurance

s 14101 Prepaid real estate taxes
s 14102 Prepaid miscellaneous taxes
14103 Prepaid insurance

Prepaid Rent and Expense Advances

14201 Advance travel funds
s 14202 Prepaid rent
14203 Prepaid expense

Supplies

s 14301 Store supplies inventories
s 14302 Warehouse supplies

LIABILITIES

21101 Notes payable
21102 Mortgages payable—Deferred
21103 Reserve for federal income taxes
21201 Accounts payable
s 21202 Reserve for prior years purchases

Accrued Expense and Other Accounts Payable

s 21301 Accrued expenses payable—Annual
21302 Insurance payable
s 21303 Rents payable
s 21304 Reserve for percentage leases
21305 Miscellaneous accounts payable
21306 Concessionaires payment
21307 Accrued interest payable
s 21308 Sales tax payable
21309 Salaries payable
21310 Reserve for managers' commissions
s 21311 Old Age Benefit and State Unemployment Insurance
21312 Accrued miscellaneous taxes
21313 Accrued real estate taxes
21314 Mortgages payable current
21315 Accrued mortgage interest
21316 Reserve for state and corporate income taxes
21317 Dividends payable
21318 Employees' pension fund accrued

CAPITAL AND SURPLUS

Common Stock

31201 Authorized
31202 Unissued
31203 Treasury

Surplus

32001 Paid in surplus
32002 Earned surplus
32003 Reserve for possible future decline in market value of merchandise stocks

INCOME

s 41101 Regular sales
s 41201 Cafeteria sales
42101 Concession sales
s 43101 Miscellaneous income
44101 Discount on purchases

44201 Interest earned—miscellaneous

Regular Merchandise

51101 Beginning inventory
51102 Provision for shrinkage
51103 Regular purchases
51104 Freight
51105 Inventory—new
51106 Credits and allowances
51107 Transfer credits

Cafeteria

51201 Beginning inventory
51202 Purchases
51203 Inventory—new

Concessions

51501 Concession cost

Store Expenses

s 52101 Salaries
s 52201 Light and power

Other Store Expenses

s 52301 Telephone and telegraph
s 52302 Coal and heat
s 52303 Water
s 52304 Sign cards
s 52305 Newspaper advertising
s 52306 Maintenance and repairs
s 52307 Postage
s 52308 Wrapping
s 52309 Cleaning
s 52310 Dues and Donations
s 52311 Moving and travel
s 52312 Supplies
s 52313 Unemployment insurance
s 52314 Sales tax

Cafeteria Expenses

s 52401 Salaries
s 52402 Linen
s 52403 Ice
s 52404 Repairs
s 52405 Supplies
s 52406 Gas
s 52407 Miscellaneous
52408 Light and power
52409 Water

Occupancy

s 53101 Rent paid
s 53102 Rent received
s 53103 Real estate taxes
s 53104 Real estate expense
s 53105 Depreciation—building
s 53106 Specific insurance
s 53107 Real estate utilities
s 53108 Real estate—repairs
s 53109 Interest on mortgage

Miscellaneous

s 53201 Depreciation—fixtures
s 53202 Amortization of improvements
s 53301 Insurance
s 53302 Miscellaneous taxes
s 53303 Group insurance
s 53304 Self-insurance

Central Office

s 54101 Salaries
s 54102 Light and gas
s 54103 Telephone and telegraph
s 54104 Water and expense
s 54105 Renewals and repairs
s 54106 Postage
s 54107 Depreciation—fixtures
s 54108 Moving and travel
s 54109 Legal and professional
s 54110 Insurance
s 54111 Sundry
s 54112 Cleaning and supplies
s 54113 Dues and subscriptions
s 54114 Corporate Expenses
s 54115 Equipment
s 54116 Unemployment insurance
s 54117 Rent
54118 Printing and stationery
54119 Tabulating
54120 Directors' Fees
54121 District managers' expense

Warehouse

s 54201 Salaries
s 54202 Light
s 54203 Telephone
s 54204 Water
s 54205 Repairs
s 54206 Postage
s 54207 Paper and twine
s 54208 Depreciation of furniture and fixtures
s 54209 Insurance
s 54210 Rent paid

s 54211 Unemployment insurance
s 54212 Coal and heat
s 54213 Miscellaneous taxes
s 54214 Depreciation of building
s 54215 Supplies
s 54216 Cleaning

Other Expenses

56001 Interest paid
56002 Sundry Profit and Loss charges and credits
56003 Provision for managers commissions
56004 Provision for federal income taxes
56005 Provision for employees' pension fund

Note: s denotes store detail required.
v denotes vendor detail required.

Operating Statements

The code of accounts previously illustrated is arranged in the proper groupings to provide automatically the necessary operating statements. This is particularly true if the system operates on a punch-card basis, for it is a simple matter to provide whatever analyses are needed by any of the various operating or controlled departments. Wherever such statements are required for the various stores, the same information is available as for the entire company.

Various items listed under the Balance Sheet accounts require further explanation. In addition to the usual operating statements, other information is required for the over-all supervision of such an enterprise, and some of the reports required are as follows:

1. Daily summary of company operations showing:
   a. Cash
   b. Orders placed
   c. Invoices received
   d. Sales progress

   Contained on the same report is weekly information pertaining to the following:
   e. Current assets
   f. Current liabilities
   g. Analysis of inventory
   h. Open commitments both current and future
2. Merchandise statistics by department showing:
   a. Sales progress
   b. Stock investment
   c. Open orders
   d. Markups
   e. Markdowns
   f. Landed cost markup percentages
   g. Freight percentages
3. Financial forecasts and budgets generally for a 6-month period.
4. Merchandise budgets.
5. Analysis of warehouse merchandise.

WHITE—N.Y.O. COPY
PINK —STORE COPY
BUFF —DIST. MGRS. COPY

WEEKLY SALES SUMMARY

Week Ending .... **195** ..... **Store No.** ....

Dept	Monday	Tuesday	Wedn sd'y	Thursday	Friday	Saturday	Week's Total	Refunds	Tax Deduct	Net Total for Week (This Year)	Dept	Net Total for Week (Last Year)
4											4	
9											9	
11											11	
12											12	
13											13	
21											21	
22											22	
23											23	
											24	
80											80	
81											81	
82											82	
Sub-Tot											Sub-Tot	
91											91	
Total											Total	

Sub total must equal amounts shown each day on Line 1 of Form 124

Dept 91 must equal amounts shown each day on Line 2 of Form 124

Prepared by

_______________ Cashier

Examined and Approved by

_______________ Manager

CLAIM REPORT

STORE NO.________ C 12002

ALL CLAIMS ISSUED BY STORE SHOULD BE SUMMARIZED ON THIS CLAIM REPORT. LIST IN "TRANSFER" COLUMN ALL CLAIMS, RETURNS AND SHIPMENTS BETWEEN YOUR STORE AND THE WAREHOUSE DIST. POINTS OR ANOTHER STORE. LIST AND TOTAL ALL CLAIMS IN DEPT. ORDER.

DATE____________19___

CLAIM OR TRANSFER NO.	DEPT	VENDOR, CARRIER, STORE, ETC	SHIPPER	CARRIER	TRANSFER	✓	RETAIL VALUE
		S					
		C					
		T					
		TOTALS					

ENTERED BY ____________ CASHIER

APPROVED BY ____________ MANAGER

ORDER RECAP.

INSERT STORE STAMP

Date:____________________

Delivery:______________________________
(If for future delivery, note month mdse. will be sold)

DEP	AMOUNT OF ORDERS	
	COST	RETAIL
4		
9		
11		
12		
13		
22		
23		
31		
33		
34		
35		
36		
42		
43		
45		
51		
52		
53		
54		
62		
63		
64		
65		
71		
72		
73		
80		
81		
82		
TOTAL		

ENTER DOLLARS ONLY

— NO CENTS —

SPECIAL DEPARTMENTS

DEPT.	AMOUNT OF ORDERS	
	COST	RETAIL
21		
24		
25		
91		X X X
Exp.		X X X

INSTRUCTIONS:

Attach this order recap to every batch of orders sent to N. Y. O. whether one or over a hundred orders. Clip the orders of each Department together and attach thereto an adding machine tape showing the department total of the orders at Cost and Retail. Then summarize this information (Dept. - Cost - Retail) on this order recap. Prepare this in duplicate. Store keeps copy.

Send #980 Warehouse orders direct to York, Pa.
Attach order recap and mark it "#980 Warehouse"
for such orders. Check below

ORDERS ON THIS RECAP. MAILED TO #980 WAREHOUSE → CHECK (✓)

Cashier:____________________ Manager:____________________

EXPENSES PAID LOCALLY
SCHEDULE D

WEEK ENDING ______________ STORE NO ______________

CLASSIFICATION	ACCT. NO.	AMOUNT	CLASSIFICATION	ACCT. NO.	AMOUNT
REGULAR STORE EXPENSE			DEPT. 84—DRUGS EXPENSE		
SUPPER MONEY, PRIZES	52101		SUPPLIES & MISCELLANEOUS	52602	
LIGHT & POWER (Deduct amt charged to lunch)	52200		ADVERTISING	52603	
TELEPHONE & TELEGRAPH	52301		FREIGHT	52604	
COAL & HEAT	52302				
WATER	52303				
SIGNS, PRICE CARDS DISPLAY MATERIAL	52304				
ADVERTISING	52305		TOTAL DEPT. 84—DRUGS EXPENSE		
MAINTENANCE REPAIRS, INSPECTION	52306				
POSTAGE	52307		DEPT 85—PRESCRIPTIONS EXPENSE		
WRAPPING SUPPLIES, BAGS, TWINE	52308		SUPPLIES & MISCELLANEOUS	52702	
CLEANING & EXTERMINATING SERVICES	52309		ADVERTISING	52703	
DUES & DONATIONS	52310				
MOVING & TRAVEL	52311				
STORE SUPPLIES	52312				
MISCELLANEOUS	52313		TOTAL DEPT 85—PRESCRIPTIONS EXPENSE		
LAUNDRY (Other than luncheonette)	52312				
PAINTING	52323		DEPT 86—MEATS EXPENSE		
			SUPPLIES & MISCELLANEOUS	52802	
			ADVERTISING	52803	
			TOTAL DEPT 86—MEATS EXPENSE		
TOTAL REGULAR STORE EXPENSE					
			ITEMS NOT CHARGEABLE TO STORE		
DEPT. 91—LUNCHEONETTE EXPENSE			MISCELLANEOUS TAXES	14102	
LINEN	52403		REAL ESTATE EXPENSE	53104	
ICE	52404		DISTRICT MANAGERS EXPENSE	54132	
REPAIRS & REPLACEMENTS	52405		SAMPLE PURCHASES	54137	
SUPPLIES	52406				
GAS	52407				
MISCELLANEOUS	52408				
LIGHT & POWER	52409				
WATER	52410				
			TOTAL ITEMS NOT CHARGEABLE TO STORE		
			RECAPITULATION		
TOTAL DEPT 91—LUNCHEONETTE EXPENSE			REGULAR STORE EXPENSE		
			LUNCHEONETTE EXPENSE		
DEPT 93—FOOD PRODUCTS EXPENSE			FOOD PRODUCTS EXPENSE		
SUPPLIES & MISCELLANEOUS	52502		DRUGS EXPENSE		
ADVERTISING	52503		PRESCRIPTION EXPENSE		
FREIGHT	52504		MEATS EXPENSE		
			SUB TOTAL		
			NOT CHARGEABLE TO STORE		
TOTAL DEPT. 93—FOOD PRODUCTS EXPENSE			CLASSIFICATION TOTAL ( ) TOTAL		

AUDIT	BOOKKEEP	COMP	TABULAT

ENTERED ______________ CASHIER

VERIFIED AND APPROVED ______________ MANAGER

SCHEDULE E

MERCHANDISE INVOICES PAID AT STORE

WEEK ENDING________________195 STORE NO.______

LIST INVOICES BY DEPT. AND TOTAL EACH DEPT. SEPARATELY ATTACH INVOICES TO THIS SCHEDULE IN SAME ORDER AS LISTED.

INVOICE		SHIPPER	INVOICE AMOUNT		RETAIL VALUE	
DEPT.	DATE					
		TOTALS				

AUDITED	EXT O K	EXAMINED	VERIFIED AS CORRECTED	APPROVED BY
			______________ CASHIER	______________ MANAGER

DAILY INVOICE REGISTER
(D. I. R.)

USE STORE STAMP

G 11972

DATE, ____________ 195__

PLEASE WRITE LEGIBLY

SHEET No. ________

LIST TRANSFERS SEPARATELY — DO NOT ENTER ON SAME D. I. R. WITH INVOICES

LINE NO	NOTE: ENTER ALL CHARGES IN DEPT NUMBER ORDER	INVOICE DEPT.	INVOICE DATE	INVOICE NUMBER	AMOUNT INVOICES	AMOUNT TRANS-FERS	TRNSPTN PAID AT STORE (FREIGHT CARTAGE EXPRESS)	SELLING VALUE		SCHED. B PAGE-LINE
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
30										
		GRAND TOTALS*								

*(If more than one sheet is used, fill in GRAND TOTALS on last sheet only)

CERTIFICATION: I HAVE PERSONALLY EXAMINED ALL INVOICES LISTED ON THIS D I R AND HEREBY CERTIFY THAT EACH AND EVERY ONE OF THEM IS IN ORDER

CASHIER

MANAGER

MONTHLY MERCHANDISE REPORT

ALL FIGURES AT RETAIL—USE DOLLARS—NO CENTS

PRESENT STOCK ON HAND (COL. 10) IS BEFORE ALLOWANCE FOR SHRINKAGE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	CHARGES			CREDITS					NET					
DEPT	Copy Col. 8 of Previous Month Brought Forward	Purchases for Month	Total Charges	Sales for Month	Purchase Credits for Month	Mark Downs for Month	Total Credits	Col. 3 Minus 7	More Received No Invoice Passed	Present Stock On Hand Gross	Open Orders Current	Number of Weeks Supply		To Date Landed Cost Mark Up %
		From Form 114A Col. 21	Cols. 1 Plus 2	From Form 114B Col. 6	From Form 114C Col. 13	From Form 114C Col. 10	Cols. 4 Plus 5 Plus 6	To Next Month's Form 102 Col. 1		Col. 8 Plus Col. 9		On Hand	On Order	
4														
8														
11														
12														
13														
22														
23														
31														
33														
34														
35														
36														
41														
43														
45														
51														
71														
72														
73														
80														
81														
82														
SUB TOTAL														
21														
24														
25														
GRAND TOTAL														

____
CASHIER

____
MANAGER

STORE NO.

USE STORE STAMP

MONTH ENDING ________________ 19__

WORK SHEET—PURCHASES AND MARKUPS

COST ☐ RETAIL ☐ INDICATE BY CHECK (✓) WHETHER COST OR RETAIL

S No

Use Store Stamp

USE DOLLARS—NO CENTS

Month Ending ______________ 195__

DEPTS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	DEPTS
	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Mark ups Form 173	CASH PURCHASES-SCHEDULE E Form 174					Month's Total	Previous Total	Total to Date	
	DIR. No.	DIR. No.	D.R. No.	D.R. No.	D.R. No.	DIR. No.	DIR. No.	D.R. No.	D.R. No.	D.R. No.	DIR. No.	D.R. No.	DIR. No.	D.R. No.	Date of Recap	Date	Date	Date	Date	Date	To Col. 2 Form 132	From Col. 23 Last Month's Form 114A	To Col. 22 Next Month's Form 114A	
4																								4
8																								8
11																								11
12																								12
13																								13
21																								21
22																								22
23																								23
24																								24
28																								28
31																								31
33																								33
34																								34
35																								35
36																								36
42																								42
43																								43
48																								48
51																								51
52																								52
53																								53
54																								54
62																								62
63																								63
64																								64
68																								68
71																								71
72																								72
73																								73
80																								80
81																								81
82																								82
TOTAL																								TOTAL

STORE No
USE STORE STAMP

WORK SHEET—SALES

ALL FIGURES AT RETAIL—USE DOLLARS—NO CENTS

MONTH ENDING________________195

1	2	3	4	5	6	7	8	9	10	11	DEPT
SALES—LESS REFUNDS AND SALES TAXES—FORM No 160								LAST YEARS SALES		ESTIMATED SALES FOR NEXT 3 MONTHS	
DATE	DATE	DATE	DATE	DATE	MONTHS TOTAL TO COL 4 FORM 102	PREVIOUS TOTAL FROM COL 8 PRIOR MO 1148	TOTAL TO DATE TO COL 7 NEXT MONTHS 1148	MONTH	TO DATE		
											4
											9
											11
											12
											13
											22
											23
											31
											33
											34
											35
											36
											42
											43
											45
											51
											52
											53
											54
											62
											63
											64
											65
											71
											72
											73
											80
											81
											82
											SUB TOTAL
											21
											24
											25
											GRAND TOTAL

WORK SHEET—CREDITS—MARKDOWNS

STORE NO.

USE STORE STAMP

MONTH ENDING ______________ 195__

ALL FIGURES AT RETAIL—USE DOLLARS—NO CENTS

DEPTS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	CREDITS—CLAIM REPORT—FORM 115														
	DATE No.	DATE No.	DATE No	DATE No	DATE No	DATE No	DATE No	DATE No	DATE No	DATE No	MDSE FROM STOCK FORM 134A	N T O ADJSTS	MONTH'S TOTAL TO COL. 9 FORM 102	PREVIOUS TOTAL FROM COL. 15 PRIOR MO. 114C	TOTAL TO DATE TO COL. 14 NEXT MOS. 114C
4															
9															
11															
12															
13															
21															
22															
23															
24															
29															
31															
33															
34															
35															
36															
42															
43															
49															
51															
52															
53															
54															
62															
63															
64															
69															
71															
72															
73															
80															
81															
82															
TOTAL															

DEPTS	16	17	18	19	20	21
	MARKDOWNS—RECAP—FORM 172					
	DATE OF RECAP	DATE OF RECAP	DATE OF RECAP	MONTH'S TOTAL TO COL. 8 FORM 102	PREVIOUS TOTAL FROM COL. 21 PRIOR MO. 114C	TOTAL TO DATE TO COL. 20 NEXT MOS. 114C
4						
9						
11						
12						
13						
21						
22						
23						
24						
29						
31						
33						
34						
35						
36						
42						
43						
49						
51						
52						
53						
54						
62						
63						
64						
69						
71						
72						
73						
80						
81						
82						
TOTAL						

CASH REPORT (RECEIPTS AND DISBURSEMENTS)

______________________ 19___
PERIOD ENDING

INSERT STORE STAMP

LINE	RECEIPTS	ITEMIZE ON	DATE / DAY	DATE / DAY	DATE / DAY	DATE / DAY	DATE / DAY	LINE	DATE / DAY	DATE / DAY	DATE / DAY	DATE / DAY	DATE / DAY	TOTAL FOR PERIOD		CODE NUMBER	N Y O. USE—ONLY	LINE
1	REGULAR MDSE SALES—GROSS	F116						1							CR	41100		1
2	RESTAURANT " "	F116						2								41200		2
3	DEPT 93—FOOD PROD SALES LESS REFUNDS	F116						3								42100		3
4	" 94—DRUGS " "	F116						4								41300		4
5	" 95—PRESCRIPTION " "	F116						5								41400		5
6	" 96—MEAT " "	F116						6								41500		6
7	CONCESSION (INCLUDING SCALES) " "	F116 F164						7								68000		7
8	VENDING MACHINE COLLECTIONS							8								43101		8
9	FEDERAL EXCISE TAX	F17						9								21333		9
10	SALES TAX	F160A						10								21308		10
11	MEALS FOR RESTAURANT EMPLOYEES	F139						11								61202		11
12	FED OLD AGE BENEFITS INS	F139						12								21318		12
13	STATE UNEMPLOYMENT INS	F139						13								21312		13
14	WITHHOLDING TAX	F139						14								21341		14
15	LAYAWAY PAYMENTS—FORFEITED	F138						15								43101		15
16	SALES OF WASTE PAPER & BOXES							16								43131		16
17	WRAPPING SUPPLIES SOLD TO CONC							17								52309		17
18	CONCESSION FEDERAL EXCISE TAX	F18						18								21334		18
19	" SALES TAX	F18						19								21311		19
20	" F O A B INS	F18						20								21319		20
21	" STATE UNEMP INS	F18						21								21320		21
22	" WITHHOLDING TAX	F18						22								21342		22
23								23										23
24								24										24
25								25										25
26								26										26
27								27										27
28								28										28
29								29										29
30								30										30
31								31										31
32								32							CR			32
33	TOTAL RECEIPTS							33										33

	DISBURSEMENTS								
34	SCHED B—EXP. FREIGHT & CTGE	F157		34			DR	11313	34
35	SCHED C—PAYROLL	F139		35			"	82000	35
36	SCHED D—LOCAL EXPENSE	F108		36				83000	36
37	SCHED E—LOCAL PURCHASES	F174		37				84000	37
38	CONCESSION PAYMENTS	F164		38				85000	38
39	REFUNDS—REGULAR MDSE	F138		39				41100	39
40	REFUNDS—RESTAURANT	F138		40			"	41200	40
41	LAYAWAY PAYMENT REFUNDS (PREV FORM)	F138		41			"	43101	41
42				42					42
43				43			"		43
44				44			"		44
45				45			"		45
46				46			DR		46
47	TOTAL DISBURSEMENTS			47					47
48	NET RECEIPTS (LINE 33 MINUS 47)			48					48
49	OPENING BALANCE (FROM PREVIOUS DAY S LINE 55)			49			CR	11104	49
50	TOTAL (LINES 48 PLUS 49)			50					50
51	LESS DEPOSITS (EVEN HUNDRED DOLLARS)	BANK RECEIPT		51			DR	11103	51
52	CLOSING BALANCE—SHOULD BE (LINES 50 MINUS 51)			52					52
53	CASH—OVER			53			CR	52314	53
54	CASH—SHORT			54			DR	52314	54
55	CLOSING BALANCE—ACTUAL			55			DR	11104	55
	ANALYSIS OF CLOSING BALANCE								
56	AGENTS ACCT FIXED BANK BALANCE			56					56
57	LAYAWAY BALANCE	F872		57					57
58	EMPLOYEES PURCHASE TICKETS	F120		58					58
59				59					59
60	REGISTER & CHANGE DRAWER FUND	F129A		60					60
61	CASH IN OFFICE			61					61
62				62					62
63				63					63
64	TOTAL—SAME AS LINE 55			64					64

NOTE. LINE 48 IN TOTAL COLUMN MUST AGREE WITH LINE 48 OF FIRST COLUMN

LINE 55 OF TOTAL COLUMN MUST AGREE WITH LINE 55 OF LAST DAY OF PERIOD

COPY LINE 55 IN TOTAL COLUMN TO LINE 49 IN FIRST AND TOTAL COLUMNS OF NEXT PERIOD'S REPORT

N Y O AUDIT

WE CERTIFY THAT THE ABOVE REPORT IS CORRECT ______ CASHIER ______ MANAGER

GENERAL & EXPENSE LEDGER

PERIOD__________

KIND (SOURCE)

00	TO-DATE	06	
01	INVOICES	07	CASH BOOK
02	CLAIMS	08	JOURNAL ENTRY
03	TRANSFERS	09	ACCRUALS
04	SCHEDULE—D	10	ADJUSTMENTS
05	SCHEDULE—C	11	FORM 124

CLASSIFICATION ACCOUNT No	STORE No	NUMBER OF INVOICE TRANSFER CHECK OR JR E	VENDOR	KIND (SOURCE)	DATE	STORE AMOUNT	CLASSIFICATION AMOUNT

Bookkeeping Methods

The records maintained for the Limited Price Variety store depend to a great extent on the number of stores involved.

As indicated before, an effective means of recording the information required is through the use of punch cards. The code of accounts previously listed was designed for such a system, and, based on these numbers, almost any analysis is available for the information of top management.

Under this method of operation, the general ledger also becomes the subsidiary ledger as well. When the detail of accounts is listed each month, a breakdown by store is automatically included in all the necessary accounts.

The information obtained from the various store reports is likewise reported on punched cards and is available for analysis of the various store operations. Such cards combined with the bookkeeping transactions taking place in the central office form the basis for the preparation of this ledger.

The Accounts Payable system, from the receipt of the invoice to the preparation of the vendor check, may also be recorded by punched cards. Such cards, in addition to serving their function for setting up purchases for each store and the liability for each vendor, are available for the merchandise analysis of the various merchandise departments for each individual unit or the entire chain.

Store Payroll records are prepared by the stores, but all recording and analyses are compiled at the central office. These payrolls are analyzed for the purpose of accounting distribution, salary budget control, and for the preparation of the quarterly Social Security Reports and the annual W–2s.

Brief Description of Preceding Forms

Weekly Sales Summary: for summarizing, by merchandise department, the daily and weekly sales in comparison with the same week of the prior year. Copies are sent to central and district manager's offices.

Claim Report: used by stores as a permanent record of all claims issued against shippers, carriers, or other stores and is also used

as a transmittal sheet when forwarding the actual claims to central office for processing.

Order Recap: for summarizing, by department, orders sent to central office. The information is used for comparison with the store's merchandise budget or buying allowance before the orders are issued to the buyers for checking and distribution to vendors.

Expenses Paid Locally: gives a distribution by expense classification of those items which are paid locally and reported in total on the Cash Report of Receipts and Disbursements.

Merchandise Invoices Paid at Store: supporting expenditure entered on Cash Report.

Daily Invoice Register: for returning approved invoices to central office for recording and payment.

Monthly Merchandise Report: for convenience of stores in preparing own record of merchandise on hand and on order by department. The three work sheets for Purchases and Markups, Sales, and Credits and Markdowns are used to summarize the information from the various forms which is transferred to the Monthly Merchandise Report.

Cash Report: for recording all receipts and disbursements, deposits and store cash accounts daily. Submitted to central office for recording.

General Expense Ledger: for detailing information required for general ledger.

ACCOUNTING FOR LIQUOR STORES

By
Charles S. Lowrimore *

Brief Description of Business

As a general rule the business of a retail liquor store is conducted on a cash basis, therefore the general accounts of this type of trading do not present any unusual accounting features. The control of inventories and sales, however, do give rise to a specialized problem in accounting. With this fact in mind the author feels that it is advisable to devote the greater part of this chapter to the specialized problem of sales and inventory control.

Under state laws, the licensing of liquor stores differs widely. For example, in North Carolina a local option law is operative and only in the eastern counties of the state may liquors be sold legally. In the sister state South Carolina licenses, however, are issued to individual operators. In both states liquor is sold only in packages; in many other states liquor may be sold across the bar, in the form of mixed drinks, and otherwise. Thus liquor stores may be classified into three groups namely, those selling only package goods, those dealing only in mixed and straight drinks, and those where a combination of the above two are sold.

In the first group, the problem of accounting for inventories and sales is comparatively simple. This type of store will therefore be given first consideration; in the second section, the more complex type will be explained.

General Accounting

The General Ledger accounts should include the usual asset and liability controls, with the usual classification for retail sales, cost and expense accounts set up with provision for expansion as the business grows.

The control of cash should be through the use of cash registers

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and specific sales control records. The cash registers should be so designed as to provide the detail necessary in accounting for the packages under assigned code numbers for each brand and size of container.

The only book of original entry for the retail liquor store of ordinary size may be a simple cash journal, with columns for the various control accounts, such as purchases, sales, costs, and expenses, and with unit columns for purchases and sales.

Daily entries to this book of original entry should be made in the usual manner from daily sales summaries, purchase records, check books, cash disbursements, deposit records, and other data for journal items.

The daily sales summaries are prepared in detail from sales checks and/or cash register receipts, which are printed as the sale is registered.

The daily purchase summaries may be made directly in the purchase journal, cash journal, or on a separate voucher, showing units, unit costs, and the total liability to vendors.

Sales and Inventory Control for Package Goods

It is essential that the purchase details and the sales details as to both units and money values be controlled by the general ledger accounts of the two detailed summaries.

The detailed sales and inventory records are best controlled by assigning code numbers to each type of container, and to each separate brand of beverage, for example:

Code Number	Brand	Type of Container
1	White Horse—Scotch	Pints
2	White Horse—Scotch	Fifths
3	Ballentines—Scotch	Pints
4	Ballentines—Scotch	Fifths
5	McCallums—Scotch	Pints
6	McCallums—Scotch	Fifths
45	Century Club—Bourbon	Pints
46	Century Club—Bourbon	Quarts
101	Four Roses	Pints
102	Four Roses	Quarts

In this manner the code numbering system indicates the price range as well as the size of the container, and with experience the

clerk handling the packages becomes expert in the recording of sales and in accounting for inventory of the merchandise. A printed list of all code numbers and brands should be available, which should also show the established price for each of the code numbers, brands, and sizes handled by the store. Shelving should be conveniently arranged, with the code numbers plainly shown under each brand and size of container.

Cash registers that are equipped for printing the date, code number, and the amount of the sale on a sales check, on a sticker attached to each package, and on an audit tape roll locked into the machine should be used.

A small rack of pigeonholes should be provided for each code number into which the sales tickets may be sorted at the end of each business day.

The daily sales and inventory report is designed to show the units of each brand and size of container, with unit sales price and the total amount of the sales for the day on each separate brand and size of container, in the following manner:

Code Number	Unit Purchases Today	Unit Sales Today	Unit Sales Price	Total Amount Sales	Inventory At End of Day
1	12	10	1.80	18.00	2
2	12	16	3.50	56.00	12
45	24	12	1.10	13.20	12
46	12	12	2.00	24.00	10

It is unnecessary to carry a column on this report for the inventory on hand at the beginning of the day as this information is taken from the last column of the previous day's report.

Each sale is recorded separately, that is, only one package with its code number will be printed on the sales checks. These sales checks will be retained in the cash register drawers until the end of each business day, when they are sorted according to the code numbers.

When all sales checks have been sorted, they are removed from the pigeonholes, counted, and the number of units sold are entered under Unit Sales Today, opposite the respective code number. The total number of units is then multiplied by the unit price extending the result to Total Amount Sales. When all sales have been counted Unit and Total Sales should be added. The total of Money Value

should equal the total shown by the cash registers as received for that business day.

Packaged goods received during the day should be summarized from invoices, requisitions, or other records provided for that purpose and the total units purchased be entered under Unit Purchases Today.

When the above operations have been completed, the inventory at the end of the business day should be extended into the last column of the report, and the totals of each page verified. The total units purchased should agree with the unit column in the general books of account, or the summary prepared showing the purchases for the day.

The total amount of sales in units and money value should be transcribed to the cash journal or monthly sales summary for each day's business. This entry should be as follows:

Debit: Cash Received
Credit: Beverage Sales
Units
Money Value

Spot checks should be made of package stock on the shelves and in unopened containers at intervals to determine if the perpetual inventory and the actual stock is in agreement. At intervals a physical count should be made of all stocks and a comparison made with the daily report record of inventory on hand as of the date the physical count is made. In this manner errors made in transferring code numbers may be located and corrected.

Where more than one clerk is needed to care for the business, a separate drawer should be provided in the cash register for each, and a letter designating the clerk registering the sale should be a part of the register equipment. Each clerk should prepare a settlement sheet at the end of each business day, and the chief clerk or store manager should summarize the clerks' settlement sheets for reconciliation with the total sales and cash receipts.

Retail Beverage Control—Packages and Across-the-Bar Sales

In introducing this system of beverage control for retail dealers, the necessity for having the subsidiary record of control dependent upon and a part of the books of account is first brought to the at-

tention of the reader. In this control system, the units received are built up from the purchase records. Units received, plus the opening inventory less the units on hand at any particular time gives the units which should have been sold. The units which represent sales are multiplied by their stated sales prices to arrive at the amount that should be received for the beverages not actually accounted for by physical inventory.

In the case of bottled goods this plan is very simple, provided all sales are made at a stated price per bottle. In the case of draught beer or other beverages that are sold by the glass, it is more difficult to obtain proper control and this calls for greater detail in the accounting records.

One of the most important features of the control is the retail price of each item. It is necessary to determine the price per bottle of each brand of beverage, and for each separate brand or price, a separate line is used on the monthly control record (described hereafter). For draught beer, wines, or hard liquors sold by the glass, the glass content must be reduced to ounces and the price per uniform (ounce) glass must be used for each separate brand or price difference. Any change in retail sales price would necessarily call for an inventory of stocks affected by the change on hand on the date of such change in price.

Weights and Measures

It is essential that accurate measures be made of standard containers, that weights be known, and that occasional checks of these weights and measures be made to determine their accuracy. It is also important that incoming bulk containers be weighed and that empty containers be weighed before returning, to determine if the purchaser is receiving the proper weights from the breweries, wineries, and distillers, as billed. For example, a gallon of draught beer weighs approximately 8.334 pounds; a half-barrel weighs 1,984 ounces, and a quarter-barrel 992 ounces.

Records of bottles of liquor opened for sales by the glass should be made, showing the net weight of the contents in order that an accurate accounting may be made of across-the-bar sales.

Bookkeeping Methods

The following forms are used:

Form 1—Tag or sticker, with duplicate, for bulk containers
Form 2—Individual receiving record
Form 3—Left and right sides—monthly recap of inventories, purchases, potential sales, and record of containers
Form 4—Daily sales recap
Form 5—Monthly sales report
Form 6—Charge voucher
Form 7—Monthly summary of beverage sales

Receiving Records

When goods are received, they should be recorded in a receiving book by the employee responsible for stores accounts. The vendor's invoice should be checked against this record, and proper notations should be made on the face of the invoice of any differences between goods billed and received. The invoice is passed to the bookkeeper who makes the usual entries on the financial records. One Purchases account in the general ledger for all beverages is ample under this method of control, and one Sales account for all beverages also will suffice.

The invoice, after having been entered in the financial records, is then entered on the individual receiving record. This record shows the date received, the container number in the case of barrel goods (where weights are important), the date and number of vendor's invoice, number of bottles, or, for barrel goods, the number of ounces, the unit price per bottle or per ounce as the case may be (if it is desired, the unit price per case or barrel may be used here, as it is immaterial in the control result), and the amount of invoice (the total amount of invoice entered here is the same as entered as a charge to Beverage Purchases and a credit to Accounts Payable or creditors' accounts in the financial records).

In the case of barrel goods, it is necessary to weigh all incoming goods to determine the gross weight. This information is obtained from a receiving sticker or tag, which shows the container number, invoice number, name of vendor, and the gross weight as received. Space is left for weight of empty containers (tare weight) so that the net weight may be obtained after the container is emptied.

A receiving sticker or tag is attached to each container, and when it is empty this form is forwarded to the bookkeeper so that proper

weight entries may be made on the corresponding receiving record. Differences in weights then may be accounted for and claims may be made against vendors for shortages, etc.

The record of containers on Form 2 is divided so that each size may be properly accounted for. The net amount of deposits as shown on all leaves must at all times agree with the net balance in the Deposit account of the financial records.

The receiving record is totaled at the end of each month, and a transfer of footings is made to the proper line (for the same brand, size; and kind of beverage) on the retail beverage control record, which is the monthly recap of all beverage purchases, sales, and inventories.

The receiving record fills a twofold purpose for the manager of the retail beverage dealer. First, it serves as a subsidiary account for each kind of beverage to control purchases and to account for sales. Second, it is a statistical record to show the best sellers, transactions in detail with each vendor, changes in prices, etc.

The Monthly Control Record or Recap

The retail beverage control record is a summary of the individual receiving records. The control record supplies the information which is outlined below according to column number:

1. The name of the beverage and brand—one line for each size or retail price variation.
2. Size of the containers for bottled goods, etc.
3. Check or verification mark.
4. Number of bottles in the beginning inventory for each separate brand or class of beverage.
5. Number of ounces in the beginning inventory for all bulk goods to be sold in glasses.
6. The unit price. This is the average cost price per unit in the beginning inventory, as used in computing profit and loss in the financial records.
7. The total amount of inventory in dollars and cents at the unit cost price. (See further explanation under "The Bar as a Department," as to department unit prices, where issues at sales prices are made from stores in hotels, clubs, etc.)
8. Number of bottles purchased during the accounting period as transferred from the individual receiving records for each brand, class, or kind of beverage.
9. Number of ounces (of bulk goods) purchased during the accounting period, as transferred from the individual receiving records for each brand, class, or kind of beverage.
10. The unit cost price for each separate kind, class, and brand of beverage. This would, of necessity, be the average unit price paid for the beverages dur-

ing the accounting period, as arrived at in the total of each individual receiving record and transferred to this recap.

11. The total amount of purchases as transferred from each individual receiving record for each separate class, kind, and brand of beverage. The total of this column at the end of the month must be in agreement with the total of the Beverage Purchases account as shown in the financial records. This is the first step in the financial control of the sales of all goods received.

12. Combined total number of bottles of each separate class, kind, and brand of beverage on hand at the beginning of the month and purchased for the month.

13. Combined total number of ounces of bulk beverages of each kind, class, and brand on hand at beginning of month and purchased for the month.

14. The average unit cost price of beginning inventory and total purchases for the month.

15. The combined total cost value of inventory at beginning of the month and purchases for the month.

16. The total number of bottles of each separate kind, class, and brand of beverage as shown by a physical inventory, taken by some responsible employee, at the end of the accounting period.

17. The number of ounces of bulk beverages, as shown by a physical inventory at the end of the accounting period. In taking this physical inventory, it is often impossible to get the amount exact, as contents of barrels on tap, etc., must be estimated; over a period of several months, however, the average will in all probability work itself out. In any event, if the estimates are conscientiously made there will not be a very large difference at any time, and any dishonesty in taking inventories will be detected as containers are emptied.

18. The unit price at cost. This is the average unit cost price, as shown in column 14, of the total of inventory at beginning and the purchases for the period.

19. The cost value of the physical inventory taken at the end of the accounting period.

20. The number of bottles which represents the remainder after deducting the quantity in column 16 from the quantity in column 12. This is the number of bottles that should be shown as sold or otherwise disposed of during the accounting period. (See Allowances, columns 25, 26, 27.)

21. The number of ounces which is the remainder after deducting the number in column 17 from the number in column 13. This represents the number of ounces of bulk beverages to be accounted for during the accounting period. (See Allowances, columns 25, 26, 27.)

22. The number of ounces, as shown in column 21, must be reduced to glasses. For example, if column 21 shows that a total of 10,000 ounces of some item are to be accounted for and ten ounce glasses are used, the figure in column 22 would be 1,000.

23. The retail sales price is established for every bottle sold and for every type of beverage sold by the glass. This price is the basis for charges to the employee responsible for the stock. In the event changes are made in retail selling prices, as stated before, a physical inventory should be taken of the stock on which price changes are made at the time of the change. This will permit an accounting for stock at the old price and the new.

24. The total amount shown in this column represents the gross sales value

of goods not accounted for in the physical inventory at the end of the accounting period, that is, the number of bottles and the number of ounces on hand at the beginning plus the purchases during the period less the physical inventory at the end of the period, and before allowances are made for shortages, free drinks, etc.

25. A record should be kept of all shortages of whatever nature, such as breakage of bottles, the number of bottles short in cases received, the ounces short in barrels or other containers, etc. This information is recorded on the receiving record and transferred to this column at the end of each month in retail values.

26. A record should be kept of free drinks served to guests, employees' allowances, etc., and this credit should be entered in retail values from totals on the monthly sales report.

27. This represents the total of columns 25 and 26, which is deducted from the total of column 24 to arrive at the net sales to be accounted for in column 28.

28. As explained under column 27, the total of column 28 at the end of each month should equal the beverage sales as shown by the financial records. With this column showing the details of what beverages make up the total sales, it is necessary to have but one sales account for beverages in the general ledger. This sales account is the control for the detail of the retail bar control.

29. This represents the gross weight of barrel goods as received, and is entered from Form 2 as explained under Receiving Records.

30. This represents the tare weight of barrel goods, that is, the weight of the barrels or kegs when empty, as obtained from Form 2.

31. This represents the actual weight in ounces of the contents of the barrels of liquors, beer, wines, etc., after deducting the tare weight from the gross weight.

32. In this column should be entered the overages in black and the shortages in red (in ounces). The sales price per ounce will govern the amount of allowances as entered in column 25.

33 to 38 inclusive. These columns provide the recap of containers as taken from the individual receiving records. This record is in cases and in the various sizes of the bulk containers. The amount of deposit in column 38 is the net and should be in agreement with the Deposit account in general ledger.

THE BAR AS A DEPARTMENT

The explanation of the system of control to this point has been based on the theory that the *retail bar* is operated as a separate unit; however, if the bar is a department of a hotel, club, restaurant, or other class of service industry, the only suggested change would be in the monthly control recap as follows:

The sales price of the goods would be used in columns 6, 10, 14, and 18, instead of the cost price. Extensions then would be at retail in these sections of Form 3. This procedure is based on the theory that issues are made from stores by a storekeeper, who is responsible for all goods received. The departments (dining room, cafeteria, coffee shop, bar, night club, roof garden, or any others in which beverages are sold) would be charged at retail for bever-

ages requisitioned and the department employee responsible for the accounting of and for the goods so issued would have for his department the control form. The receiving records would be kept in the storeroom or by a bookkeeper for the storeroom, showing the cost prices, etc. This person accounts for issues to departments, while the *retail bar dealer* accounts for sales.

FIGURE A
BOTTLED GOODS

Brand Beverage	On Hand Beginning	Received	On Hand Ending	Potential Sales	Unit Price	Potential Revenues
Liquors						
Canadian Club —Quarts	100	1,000	200	900	$3.00	$2,700.00
Four Roses— Quarts	50	200	100	150	3.00	450.00
Pints, etc.	100	100	100	100	1.75	175.00
Beer						
Schlitz	100	2,400	500	2,000	.20	400.00
Piels	200	3,600	800	3,000	.20	600.00
Blue Ribbon	100	900	500	500	.20	100.00
Wines						
Quarts						
Pints, etc.						
Totals	650	8,200	2,200	6,650	—	$4,425.00

DRAUGHT BEER (In Ounces)

Schlitz						
10—½ Bbls. ..	19,840					
100—½ Bbls. ..		198,400				
20—½ Bbls. ..			39,680			
90—½ Bbls. ..				178,560		
Sales Reduced to Glasses Using 10 ounce glass				17,856	.10	$1,785.60
TOTAL SALES ..						$6,210.60

CONTROL RECORD RESULTS

The Summary (Fig. A) shows in a very simple manner the results obtained from the control record.

Hard liquors sold by the glass are computed in the same manner as draught beer, after the size of glasses and price per glass are established.

From the summary (Fig. A) it will be seen that the gross sales in dollars and cents amount to $6,210.60, arrived at by using the unit sales prices of all purchases not accounted for in physical inven-

tories. Gross sales are then reduced to net sales by deducting recorded shortages, free drinks, etc.

CONTROL OF LIQUORS, ETC., USED IN MIXED DRINKS

The control of the liquor ingredient in mixed drinks is intended to be handled in the same manner as the bulk or draught beer, that is, bottles opened for sale of straight or mixed drinks across the counter will be recorded as follows:

Brand Liquors	Ounces on Hand Beginning	Ounces Opened Today	Ounces on Hand Ending	Potential Sales	Price Per Ounce	Sales Value
White Horse—						
32 oz.......	32	32	32	32	.10	$3.20

A line is necessary on the form for each brand, and the check up will be as illustrated above.

Since all mixed drinks contain a specific content in weight of the liquor ingredient, the above will take care of this control. As to other ingredients used in the mixing of drinks, this record does not provide control, but merely considers such ingredients as necessary supplies.

The Sales Records and Recapitulations

The daily recap of sales is made up from the sales checks of the day. Where no cash register is used, it is necessary to make a sales check for each transaction, whether across the bar or for table service. Where cash registers are used, it is suggested that sales checks be used for all table service, whether cash or charge, and that all bar service for cash be handled through the register without the burden of making a sales check therefor.

The sales checks are entered on the daily recap, showing first the number of the check, then the distribution as to cash, charges to guests, employees' allowances, free drinks, and the total in the last column. After the cash from registers has been entered as the last item of cash sales for the day, totals are made of the respective column. These totals are then transferred to the monthly sales report (Form 5) on the proper date line.

An Alternative Daily Sales Recap

Under this alternative plan, all sales are considered cash, that is, all bar and table service of beverages are registered as cash sales

on the bar registers. Signed vouchers for charge accounts (Form 6) are used for accounting to the cashier for noncash items, including also free drinks and employees' drinks. These charge vouchers are filed in date order in support of the charges.

Entries are made each day directly on the monthly sales report, showing net cash sales in column 1, charge sales in column 2 (supported by the vouchers charged to guests and filed), employees' drinks, and free drinks in the next two columns, the total sales in column 5, and the cash register reading in column 6. These cash register readings should be cumulative and should be changed only by the manager, auditor, or other person authorized to make such change and in possession of the key to the register.

Monthly Sales Report

This monthly recap is kept from day to day, the entries being made from the daily recap of sales, as explained for the first method above or if the second method is used, the entries are from the cash register readings and the charge vouchers. The total sales minus allowances and free drinks, as recorded on the monthly sales report, should be in agreement with the net sales, as shown by column 28 of the beverage control record. Moreover, the total of sales on Form 5, should equal the total sales as shown for the month in the General Ledger Sales account, provided free drinks and employees' drinks are also carried in the financial records. If only the actual sales to guests, cash and charge, are carried in the financial records, then the corresponding two columns of Form 5 should be added to compare and verify with the account in the financial records.

The Monthly Summary of Sales, Purchases, Stocks, Etc.

This form is designed for the use of the management in determining the accuracy of the records, the salability of stocks, and the overage or shortage in comparing the Sales account in the general ledger with the total sales figurė ascertained by the control system. This gives a condensed statement of the control methods in use, and combines the information obtained from the monthly beverage control recap, and from the financial records.

ACCOUNTING FOR THE LUMBERING INDUSTRY

By

BURTON M. SMITH *

BRIEF DESCRIPTION OF BUSINESS

Lumbermen are engaged in cutting timber in the forest and preparing it for market. In some cases a company may be engaged in the production of logs only; in other instances the logs, after being taken from the forest, are manufactured into lumber and sold; in others, the logs may be used in manufacturing laths, shingles, plywood, fibre board products, news print, fuel, and other products which are sold.

The trees in the forest are usually cut by hand by skilled "fallers." After being felled the tree is trimmed of its branches, cut or "bucked" into merchantable lengths and is then ready to be transported to market or to the sawmill. Logs are transported from the woods by being loaded on railroad cars, hauled on trucks, or, sometimes, floated down rivers to the sawmill or to a central booming and rafting ground.

At the rafting ground or log pond the logs are sorted and graded. Probably the bulk of the logs will be manufactured into lumber for construction work, railroad ties, interior trim, cooperage, excelsior, etc. A few of the better grades of logs may be used in the manufacture of plywood or veneer panels, and other logs may be used in the manufacture of news print, insulation board, or fuel.

THEORY OF ACCOUNTS

For the last several years there has been a very consistent effort on the part of the Lumber Trade Associations to convince lumbermen of the advantages of adopting uniform accounting systems and practices. Often the practical application of uniform systems of accounting has been of great benefit to the lumbering industry be-

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cause of the accurate and comparable cost, statistical and financial data which are now available.

Accounting for the lumber industry in many respects is similar to that for other enterprises in that cost information is necessary and income must be classified between the types and species of logs sold or size and grade of lumber manufactured. Expenses must be distributed to departments and operations, and asset, liability, and net worth accounts must be maintained. On the other hand, lumber accounting does follow certain unique theories in connection with depletion of timber, the depreciation of equipment, and the valuation of inventories.

Depletion

Timber depletion, or the stumpage cost is calculated annually for each tract of timber owned and logged during the year. The depletion rate per thousand is determined by an estimate or a cruise by experts of the amount of merchantable timber available in a certain area. Usually the timber is cruised in quantity and by species, and the information gathered from the cruise is listed on maps for each 40-acre tract of land owned. After the quantity of standing timber in each tract is determined the cost per thousand feet is calculated by dividing the quantity into the purchase price of the area. Sometimes the purchase price is allocated between the cost of the land and the cost of the timber providing there is a possibility that the cut-over land will have salable value. When there is no possibility of selling the land after the timber is logged, the total purchase price will be applied to the cost of timber.

The information regarding the stumpage cost by tracts of timber is recorded on maps or in a timber ledger. At the end of each year the logged area is plotted on the timber ledger maps, and the quantity of timber, according to the original cruise for the area logged, multiplied by the depletion rate or cost per thousand will determine the depletion charge for the year.

Sometimes the logger will buy the timber only and pay a flat amount for each thousand feet of logs produced from the area. In such instances the stumpage figures will be taken from sales or production records, and the accounting problems are much simplified.

Depreciation

The depreciation of machinery and equipment is normally determined by the expected useful life of the equipment. In the lumber industry this factor must be considered in the light of the available supply of timber. For instance, a logging railroad may be built to log a certain area of timber. The actual physical life of the road, if kept in repair, may be many years; however, the useful life may be very short and will terminate after the forest is cut. For this reason depreciation of logging and lumber operations often is determined on the ratio of current production as compared to total available production, rather than the more common straight-line method of depreciation.

Inventories

In the lumber industry many problems and theories arise in connection with the valuation of the lumber inventories. Some of the more common methods in use are: (1) the average cost of production, (2) selling price, less provision for profit, selling and administration expenses, warehousing and shipping, etc., and (3) cost allocated to grades in the relationship of total cost of production to total selling price.

The average cost method will show a true picture providing the inventory contains the same ratio of low and high priced lumber as that manufactured during the year. As this is not always true, the average cost method does not always give as accurate a picture as the other two methods suggested.

The second method is accurate providing the proper deductions are made for the expenses as listed plus profit.

The third method gives a very accurate inventory result; however, this method requires a more elaborate accounting system with sales classification for the year by grades, which, in turn, will be used to determine production figures by grades.

Accounts Required

The accounts for the lumber industry are designed to give to a particular operator the information he desires in the management of his business. The classification will vary with each company, but in general will be as follows:

1. Income will be classified among sale of logs by species, sale of lumber by kind, grade, and size, and sale of by-products.

2. Production costs will be classified to furnish the logging costs which include the charges for building of railroads and transportation facilities to the area to be logged, costs of felling the trees, and bucking them into merchantable lengths, skidding and yarding of the logs to a transportation center, and the loading of the logs on trucks or railroad cars or other transportation facilities to a booming and rafting ground or direct to a mill.

3. The costs required in the manufacture of lumber will include the operation of the sawmill, sorting of lumber, grading and piling of lumber, the operation of dry kilns and planing mills, and the costs of manufacturing by-products.

4. The lumber operator is interested in the warehouse and shipping costs of the finished product, and the accounts are so classified as to make this information available. Separate accounts are also maintained for the expense of selling the products and the usual general and administrative expenses found in most industries. A chart of the general ledger accounts suitable for logging and lumber operations follows:

Chart of General Ledger Accounts

Assets

Current Assets:

- Cash
- Receivables
- Inventories
  - Logs
  - Down Timber (felling and bucking labor and expense)
  - Lumber
  - Supplies

Fixed Assets:

- Forest Lands and Standing Timber
- Carrying Charges
- Cut-over Lands
- Land—Sawmill Site
- Logging Equipment
- Logging Transportation Equipment
- Logging Roads or Spurs
- Boom and Rafting Grounds
- Buildings
- Machinery and Equipment—Sawmill
- Office Furniture and Fixtures

Prepaid Expenses

Liabilities

Current Liabilities:

- Accounts Payable
- Commissions Payable
- Notes Payable
- Payroll Accrued
- Taxes Accrued
- Interest Accrued

Long-Term Liabilities

Reserves

- Reserve for Loss on Bad Accounts
- Reserve for Freight
- Reserve for Depreciation
- Reserve for Amortization, Spurs or Roads

Net Worth

- Capital Stock
- Surplus—Earned
- Surplus—Timber Appreciation (3/1/13 value)

Operating Accounts

Sales:
- Logs
- Lumber
- Fuel, etc.

Underweights
Stumpage Costs
Logs Purchased

Woods Costs:
- Rigging Ahead
- Felling and Bucking
- Skidding and Loading
- Grading
- Logging Equipment Repairs
- Logging Equipment Expense
- Wire Rope
- Saws
- Fire Loss
- Depreciation

Transportation Expense:
- Operating Labor
- Track (or Road) Maintenance
- Operating Repairs
- Operating Expense and Supplies
- Depreciation
- Amortization of Main Line and Spurs (or Road)

General Logging Expense:
- Salaries
- Camp Expense
- Cruising
- Fire Patrol
- Taxes
- Insurance

Log Pond Expense:
- Labor
- Repairs
- Expenses and Supplies
- Depreciation

Sawmill:
- Mill Labor
- Power
- Supplies
- Repairs
- General Expense
- Depreciation

Yards:
- Labor
  - Sorting
  - Transportation
  - Piling
  - General
- Repairs
- General Expense
- Depreciation

Dry Kilns:
- Labor
- Power
- Repairs
- General Expense
- Depreciation

Planing Mill:
- Labor
- Power
- Repairs
- General Expense
- Depreciation

Fuel Yard:
- Labor
- Expense

General Operating Expense:
- Salaries
- Taxes
- Miscellaneous

Warehouse and Shipping:
- Wages
- Supplies
- Demurrage
- Miscellaneous

Selling Expense:
- Salaries
- Commissions
- Advertising
- Traveling Expense
- Miscellaneous

General and Administration Expense:
- Salaries—Officers
- Salaries—Office
- Stationery and Office Supplies
- Credits and Collections
- Light and Heat
- Telephone and Telegraph
- Taxes
- Insurance
- Bad Debts
- Professional Services
- Traveling Expense
- Miscellaneous

Miscellaneous Expense:
- Interest Paid
- Discounts Allowed

Miscellaneous Income:
- Discounts Earned
- Interest Income

BALANCE SHEET

STATEMENT A

NAME OF COMPANY

Date________ 194_

ASSETS

CURRENT ASSETS:		Detail	Total	
Cash			$xxxxx	
Receivables		$xxxxx		
Less: Reserve for Losses	$xxxxx			
Reserve for Freight	xxxxx	xxxxx	xxxxx	
Inventories:				
Logs		xxxxx		
Down Timber (felling and bucking labor)		xxxxx		
Lumber		xxxxx		
Supplies		xxxxx	xxxxx	
				$xxxxx
FIXED ASSETS:				
Forest Lands and Standing Timber		xxxxx		
Carrying Charges		xxxxx		
Cut-over Lands		xxxxx	xxxxx	
Land—Sawmill Site			xxxxx	
Logging Equipment		xxxxx		
Logging Transportation Equipment		xxxxx		
Logging Roads or Spurs		xxxxx		
Boom and Rafting Grounds		xxxxx		
Buildings—Sawmill		xxxxx		
Machinery and Equipment—Sawmill		xxxxx		
Office Furniture and Fixtures		xxxxx		
		xxxxx		
Less Reserve for Depreciation and Amortization		xxxxx	xxxxx	
Total Fixed Assets				xxxxx
PREPAID EXPENSES				xxxxx
Total Assets				$xxxxx

Liabilities and Net Worth

Current Liabilities:		
Accounts Payable	$xxxxx	
Commissions Payable	xxxxx	
Notes Payable	xxxxx	
Payroll Accrued	xxxxx	
Taxes Accrued	xxxxx	
Interest Accrued	xxxxx	
Total Current Liabilities..		$xxxxx
Long Term Liabilities		xxxxx
Net Worth:		
Capital Stock	xxxxx	
Surplus—Earned	xxxxx	
Surplus—Timber Appreciation .... (3/1/13—value)	xxxxx	
Profit and Loss (Statement B)	xxxxx	
		xxxxx
Total Liabilities and Net Worth		$xxxxx

Condensed Operating Statement

Statement B

NAME OF COMPANY

Date________ 194_

	Current Month Detail	Current Month Total	Year to Date Detail	Year to Date Total	%
Income:					
Gross Profit on Log Sales..........		$xxxxx		$xxxxx	
Gross Profit on Lumber Sales......		xxxxx		xxxxx	
Gross Profit on Fuel Sales		xxxxx		xxxxx	
(All above from Statement C)					
Total Gross Profit		$xxxxx		$xxxxx	100.0
Expenses:					
Warehouse and Shipping					
Wages	$xxx		$xxx		
Supplies	xxx		xxx		
Demurrage	xxx		xxx		
Miscellaneous	xxx		xxx		
Selling					
Salaries	xxx		xxx		
Commissions	xxx		xxx		
Advertising	xxx		xxx		
Traveling	xxx		xxx		
Miscellaneous	xxx		xxx		
General and Administration					
Salaries—Officers	xxx		xxx		
Salaries—Office	xxx		xxx		
Stationery and Office Supplies..	xxx		xxx		
Credits and Collections	xxx		xxx		
Light and Heat	xxx		xxx		
Telephone and Telegraph	xxx		xxx		
Taxes	xxx		xxx		
Insurance	xxx		xxx		
Bad Debts	xxx		xxx		
Traveling	xxx		xxx		
Professional Services	xxx		xxx		
Miscellaneous	xxx	xxxxx	xxx	xxxxx	00.0
		xxxxx		xxxxx	00.0
Miscellaneous Expenses—Net......		xxxx		xxxx	00.0
Net Operating Profit (to Statement A)		$xxxxx		$xxxxx	00.0

Summary of Operations

Statement C

NAME OF COMPANY

Date __________ 194__

	Current Month			Year to Date		
	Scale	Amount	Per M	Scale	Amount	Per M
Logs:						
Sales	xxx	$xxxxx	$xx	xxx	$xxxxx	$xx
Cost of Sales (from Statement D)		xxxxx	xx		xxxxx	xx
Gross Profit on Logs (to Statement B)	xxx	$xxxxx	$xx	xxx	$xxxxx	$xx
Logs at Mill to Begin	xxx	$xxxxx	$xx	xxx	$xxxxx	$xx
Received from Woods (from Statement D)	xxx	xxxxx	xx	xxx	$xxxxx	$xx
Total	xxx	xxxxx	xx	xxx	xxxxx	xx
Inventory at End	xxx	xxxxx	xx	xxx	xxxxx	xx
Cost of Logs	xxx	xxxxx	xx	xxx	xxxxx	xx
Log Pond Labor and Expense	xxx	xxxxx	xx	xxx	xxxxx	xx
Logs Used by Sawmill	xxx	$xxxxx	$xx	xxx	$xxxxx	$xx

	B. M.	Amount	Per M	B. M.	Amount	Per M
Lumber:						
Sales	xxx	$xxxxx	$xx	xxx	$xxxxx	$xx
Cost of Sales						
Inventory to Begin	xxx	xxxxx	xx	xxx	xxxxx	xx
Logs Used—Above	xxx	xxxxx	xx	xxx	xxxxx	xx
Sawmill Costs (from Statement E)		xxxxx	xx		xxxxx	xx
Total	xxx	xxxxx	xx	xxx	xxxxx	xx
Inventory at End	xxx	xxxxx	xx	xxx	xxxxx	xx
Cost of Sales	xxx	xxxxx	xx	xxx	xxxxx	xx
Gross Profit on Lumber (to Statement B)	xxx	$xxxxx	$xx	xxx	$xxxxx	$xx

	Units	Amount	Per U	Units	Amount	Per U
Fuel:						
Sales	xxx	$xxxxx	$xx	xxx	$xxxxx	$xx
Cost of Sales						
Inventory to Begin	xxx	xxxxx	xx	xxx	xxxxx	xx
Labor		xxxxx	xx		xxxxx	xx
Expense		xxxxx	xx		xxxxx	xx
Total		xxxxx	xx		xxxxx	xx
Inventory at End	xxx	xxxxx	xx	xxx	xxxxx	xx
Cost of Sales	xxx	xxxxx	xx	xxx	xxxxx	xx
Gross Profit on Fuel (to Statement B)	xxx	$xxxxx	$xx	xxx	$xxxxx	$xx

Detailed Statement of Logging Operations

Statement D

NAME OF COMPANY

Date ________ 194__

	Current Month Amount	Current Month Per M	Year to Date Amount	Year to Date Per M
Woods Costs:				
Rigging Ahead	$xxxxx	$xx	$xxxxx	$xx
Felling and Bucking	xxxxx	xx	xxxxx	xx
Skidding and Loading	xxxxx	xx	xxxxx	xx
Grading	xxxxx	xx	xxxxx	xx
Equipment Repairs	xxxxx	xx	xxxxx	xx
Wire Rope	xxxxx	xx	xxxxx	xx
Saws	xxxxx	xx	xxxxx	xx
Fire Loss	xxxxx	xx	xxxxx	xx
Depreciation	xxxxx	xx	xxxxx	xx
	$xxxxx	$xx	$xxxxx	$xx
Transportation:				
Operating Labor	$xxxxx	$xx	$xxxxx	$xx
Track (or Road) Maintenance	xxxxx	xx	xxxxx	xx
Operating Repairs	xxxxx	xx	xxxxx	xx
Operating Expense and Supplies	xxxxx	xx	xxxxx	xx
Depreciation	xxxxx	xx	xxxxx	xx
Amortization of Main Line and Spurs (or Road)	xxxxx	xx	xxxxx	xx
	$xxxxx	$xx	$xxxxx	$xx
General Expenses:				
Salaries	$xxxxx	$xx	$xxxxx	$xx
Camp Expenses	xxxxx	xx	xxxxx	xx
Cruising	xxxxx	xx	xxxxx	xx
Fire Patrol	xxxxx	xx	xxxxx	xx
Taxes	xxxxx	xx	xxxxx	xx
Insurance	xxxxx	xx	xxxxx	xx
	$xxxxx	$xx	$xxxxx	$xx
Stumpage Costs	$xxxxx	$xx	$xxxxx	$xx
Cost of Logs Produced	$xxxxx	$xx	$xxxxx	$xx
Disposition				
Logs Sold (to Statement C)	$ xxxx	$xxx	$ xxxx	$xxx
Logs Sent to Mill (to Statement C)	xxxx	xxx	xxxx	xxx
	$xxxxx	$xxx	$xxxxx	$xxx

Log Scale

	Current Month	Year to Date
Logs Sold	xxxxx	xxxxx
Logs Sent to Mill	xxxxx	xxxxx
Total Logs Produced	xxxxx	xxxxx

Detailed Statement of Sawmill Operations

Statement E

NAME OF COMPANY

Date __________ 194__

	Current Month Amount	Current Month Per M	Year to Date Amount	Year to Date Per M
Sawmill:				
Mill Labor	$ xxx	$xx	$ xxx	$xx
Power	xxx	xx	xxx	xx
Supplies	xxx	xx	xxx	xx
Repairs	xxx	xx	xxx	xx
General Expense	xxx	xx	xxx	xx
Depreciation	xxx	xx	xxx	xx
	$xxxx	$xx	$xxxx	$xx*
Yards:				
Labor	$ xxx	$xx	$ xxx	$xx
Repairs	xxx	xx	xxx	xx
General Expense	xxx	xx	xxx	xx
Depreciation	xxx	xx	xxx	xx
	$xxxx	$xx	$xxxx	$xx*
Dry Kilns:				
Labor	$ xxx	$xx	$ xxx	$xx
Power	xxx	xx	xxx	xx
Repairs	xxx	xx	xxx	xx
General Expense	xxx	xx	xxx	xx
Depreciation	xxx	xx	xxx	xx
	$xxxx	$xx	$xxxx	$xx*
Planing Mill:				
Labor	$ xxx	$xx	$ xxx	$xx
Power	xxx	xx	xxx	xx
Repairs	xxx	xx	xxx	xx
General Expense	xxx	xx	xxx	xx
Depreciation	xxx	xx	xxx	xx
	$xxxx	$xx	$xxxx	$xx*
General Operating Expenses:				
Salaries	$ xxx	$xx	$ xxx	$xx
Taxes	xxx	xx	xxx	xx
Miscellaneous	xxx	xx	xxx	xx
	$xxxx	$xx	$xxxx	$xx*
Total Sawmill Costs (to Statement C)	$xxxx	$xx	$xxxx	$xx*

* Based on production figures as determined by production summary.

Bookkeeping Methods

The following records are usually kept for lumber operations:

The General Ledger contains the detailed or control accounts of the assets and liabilities, incomes, and the expenses of the business.

The Accounts Receivable Ledger contains the detailed record of the transactions with each customer.

The Timber Ledger contains the statistical data to enable the office to have a complete record of the timber owned. All of the information regarding the kind of timber, stumpage rate per thousand, etc., is entered for each 40-acre tract.

The Plant and Eqiupment Ledger is usually kept separately for each type of equipment, with a notation as to the cost and the depreciation taken for each period.

The Creditor Record is either a voucher payable file or an accounts payable ledger.

The Payroll Records are the usual standard payroll records required to furnish necessary information for social security and state unemployment insurance reports.

The usual books of original entry are found in the lumber industry and include the following: (1) vouchers or purchase registers, (2) sales journal, (3) cash receipts and settlement journal, (4) check register, (5) payroll record, and (6) journal.

These records are standard except for the sales record which merits comment. The normal entry in the sales journal is to charge Accounts Receivable with the sale price of the shipment f.o.b destination and credit Underweights for the estimated freight, the balance being credited to the particular Sales account of logs, lumber, by-products, etc., as the case may be. A column is also provided for commission on each sale.

When the car is weighed or the actual freight determined, which is usually at the destination, the amount will be entered in the actual freight column provided. The total of this column will be charged to the Underweights account and credited to the Reserve for Freight. When the cash remittance is received from the customer, together with the paid freight bill, the item in the actual freight column will be marked as paid. All unchecked items at the end of any month should balance with the control column, reserve for freight. The sales journal should include some distribution of

sales and it is often found that the sales distribution in the sales journal is the same as the classification found in the taking of monthly and annual inventories so that production figures can be determined as explained later.

Production Records—are daily tally sheets of all logs produced and monthly inventories, in which monthly production figures are readily available for comparison with operating statements to determine the cost of production per thousand. The production of logs can readily be determined by scaling each log as it is received from the woods at the booming or rafting ground or as it is loaded on the car or truck when it leaves the forest.

Several plans might be offered as a means of determining the amount of lumber produced; however, a monthly inventory of actual lumber in yards or stacked in the warehouse is a proved method. This method not only furnishes actual production figures but also supplies the sales department with a reliable inventory to be used in filling present orders and guides the production department in issuing manufacturing orders. The following summary will give the production information desired:

	Grades as Desired		
	A	B	C
Inventory at end of month	xxx	xxx	xxx
Sales	xxx	xxx	xxx
Used by mill	xxx	xxx	xxx
Total	xxx	xxx	xxx
Less: inventory at beginning of month	xxx	xxx	xxx
Monthly production	xxx	xxx	xxx

By grouping the various grades of lumber the correct production for planing mill, dry kiln, and sawmill may be ascertained. These figures, when used with the financial statements, will determine unit costs.

ACCOUNTING FOR MAGAZINE PUBLISHERS

By

J. K. Lasser*

Brief Description of Business

Magazine publishing serves by giving information or entertainment, not only in its editorial pages but also in its advertisements.

The type of readers which a magazine seeks—the group to whom it renders a service—may determine the accounting which must be maintained.

Magazines fall, roughly, into two groups of reader-appeal: (1) consumer magazines directed to the general public, and (2) business or technical papers directed to the members of a particular business or industry.

To the consumer group belong such publications as the *Saturday Evening Post, Time, Life, Vogue, Harper's, House and Garden,* and *American Home.* Their purpose is primarily either to entertain by means of fiction and articles or to report, and perhaps interpret, news of general interest.

Business papers, on the other hand, are read primarily for the specific industry information they contain. The list of business papers is long and varied. Some are well known. Others are almost unknown outside of their particular industry. Their diverse appeals may be indicated by mentioning only a few of their titles: *Iron Age, Textile World, Advertising Age, Mill and Factory, Mining and Metallurgy, Purchasing, Railway Age, Coal Age,* and *Casket and Sunnyside.* In other words, a mining engineer, a purchasing agent, and a mortician might read the *Saturday Evening Post.* But among business papers, the mining engineer would turn to *Mining and Metallurgy,* the purchasing agent to *Purchasing,* and the mortician to *Casket and Sunnyside.*

Regardless of the differences between the two groups in their appeal to readers, the principal expenses of both groups are in five departments: production, advertising, editorial, circulation, and

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administrative. All these must be taken into consideration in considering the accounting methods for magazine publishing.

Consumer papers look to two principal sources for their income: sale of advertising space, and sale of the magazine itself. Various degrees of importance are assigned to these sources of income. For example, the *Saturday Evening Post* receives the major part of its income from advertising—but the sale of the magazine also brings in substantial sums. The *Readers' Digest* relies solely upon the sale of the magazine itself for revenue.

The principal source of income of business papers is from the sale of advertising space. Here, then, may be substantial income, or there may be distribution without cost to the reader; some intentionally distribute their magazine gratis to controlled lists in order to obtain the type of reader desired.

Advertising rates are generally based upon the quality and quantity of circulation. This, in turn, is naturally dependent upon the editorial appeal of the magazine.

In most cases, magazines are printed by independent printers. Generally, however, the publisher purchases the paper used in his publication and stores it at the printing plant.

Theory of Accounts

Accepted practice in the theory of accounting for profit or loss of a publication among publishers differs materially from that in use in other industries. As in all other groups—each variance is a distinct effort to use the recording of daily transactions to produce the most serviceable tools for management.

The principles involved may be stated very briefly as follows:

1. The income of a publication is from three sources: advertising billings, subscription and newsstand receipts, and other income. The latter may include income from list rental sales, sales of books, annuals, engravings, reprints, art work—a great many other sources of income found in individual houses. The income accounts are segregated by appropriate accounts to reflect all these sources.

2. The accounting for the expenses of a publication reasons that the organization of a publisher is composed of the service divisions necessary to (a) print and distribute the magazine, (b) promote the advertising sales—and then solicit and service the advertising accounts, (c) prepare the text pages of the publication, (d) solicit

and fulfill the distribution—and also promote any newsstand sales and (e) generally administer the business. All expenses are classified in these five groups. Thereafter, each department is analyzed by establishing appropriate accounts to meet the requirements of the situation.

3. The income and expenses are secured for each publication or service owned. All expenses disbursed on behalf of more than one publication (or more than one of the five operating departments of a publication) are distributed as completely and as equitably as possible to each publication and department.

Accounts Required

In the light of the foregoing, the following is a description of the type of accounts used.

1. Appropriate income accounts describe the advertising volume resulting from each of: display pages, classified space, color pages, inserts, and cover pages for each magazine. These are included in the billing to the advertiser. If there is billing direct to an advertising agency, the amount included is taken at the net billing (gross space rates, less the agency commission). These advertising income accounts are then adjusted for allowances and rebates to the advertiser or his agency. That can come for a variety of reasons. They include: failure of the publisher to meet a circulation guarantee; failure of an advertiser to fulfill a contract for a given amount of space; increase in space taken by advertiser over what was assumed to be the billing rate on initial billings. The specific adjustments we have listed are termed guarantee rebates, short-rates, and frequency rebates, respectively. In addition, there may be many other types of allowances to an advertiser—particularly for bad printing, or failure to follow contracted terms.

2. Sale of a magazine can give two broad types of income: the payment from the subscribers; the newsstand sales. The circulation income may be subject to much account division to reflect the source of the subscribers (for example, sales by mail, field forces, agencies, other types of orders). These are often further subdivided to show the income by the source of new and renewal business. Accounting for the subscription income varies. One is a cash method of accounting for subscription income and the subscription solicitation costs—even though the income received is to be serviced

over some period following receipt. That method is approved for income tax accounting. Not approved by the government is the system of deferring income over some period—but expensing monthly the costs of obtaining it. It should be reported that many other systems are used. Some of these include—

Prorating income over the life of the subscription.

Deferring only the estimated cost of servicing the subscriber over the life of the subscription—and taking the balance into the income on receipt.

Prorating the income when billed—rather than when received—over one of the two foregoing methods.

Prorating both the income—and the cost of getting it—over one of these methods.

Prorating only certain types of subscriptions (perhaps those taken only through mail orders) by one of these methods.

It is sad to report that there is no uniform method adopted. The author favors this accounting: only cash subscription income is immediately taken into the accounts in the month received—and all cost to get that business is expensed as incurred; newsstand income is taken into income as billed, less immediate and adequate provision for returns to come from the news company. For a full statement of the reasons for this position—and for a discussion of the tax consequences that might arise without positions, see *Handbook of Tax Accounting Methods.**

3. The publisher generally divides the expenses of each paper into five groups: production and distribution costs; advertising; editorial; subscription and newsstand promotion—and subscription fulfillment costs; and then the administrative costs.

Into *production and distribution costs* is first placed the full cost of printing all the issues of the magazine. That can involve a variety of accounts—where the publisher wants to segregate between composition, presswork, presswork for various types of this effort—say color forms or binding charges. Or he may want to distinguish between these costs running in one character of press equipment (say letterpress, or offset, versus rotogravure printing). Here, too, are placed color plate costs, paper costs, and the production department expenses for salaries and other items.

The *distribution expenses* include the materials used for the mailing. They may be wrappers, envelopes, or other materials—plus

* *Handbook of Tax Accounting Methods*, edited by J. K. Lasser, D. Van Nostrand Co., Inc., New York, N. Y., 1951, p. 488.

the transportation cost (postage, express, freight) of sending the copies to the subscribers or the newsstand source of sale. Mechanical costs do not as a rule include the cost of electrotypes, engravings, photographs, art or editorial, although they are admittedly an element in the makeup of the paper. These are usually charged against the following:

1. The editorial department when it has ordered the material.
2. The advertising department when it has inserted the copy without the right to charge the advertiser for engravings and copy service.
3. The income arising from the sale of engravings or copy service.

The *advertising department* is charged with the cost of fulfilling the following functions:

1. The research, promotion, and publicity necessary to sell space properly.
2. The actual solicitation through salesmen or representatives on a salary or commission basis.
3. The servicing of accounts by service to advertisers—and marketing counsel, copy service, other sales aids, and art.
4. The makeup of the advertising pages.
5. The collection of the advertising accounts.

The *editorial department* is charged with all the costs of preparing the text pages of the paper, including the art, illustrations, photographs, cuts and engravings, articles purchased from outsiders, salaries of the editors, traveling, and other expenses of the department.

Circulation costs are usually divided into: the cost of fulfilling the subscriber's order once it has been received (this is the record keeping and collection job); the cost of getting subscribers (promotion and selling expenses); cost of servicing the newsstand business (principally the promotion job to stimulate business). How much further publishers go in segregation depends upon management needs. Often sought is the precise cost of obtaining individual types of orders. Just as the income is often divided to show what has come from mail orders, field salesmen, agencies, and other media—so also are the expenses broken up to tell costs for each type of order. Sometimes, too, the publisher seeks a division of his income and costs as between new and renewal business. Only through that can he really determine the most profitable source of effort in obtaining subscribers. When, as is true in so many cases, the magazine is sent gratis to a controlled list, the costs here will be only concerned with the building of the list. Sometimes we get

combinations of the controlled distribution and the paid distribution. The accounts will reflect all needed for the publisher's management.

Typical Operating Statements

The following outline gives in condensed form an ideal operating statement based upon the fundamentals discussed previously.

Condensed Operating Statement

INCOME (net of all adjustments and agency commissions, and cash discounts to advertisers)
- Advertising
- Subscription and newsstand income
- Service sales (cuts, art work, copy, and reprints—net of expense)
  - Total Income

EXPENSES

Production and Distribution Costs
- Composition, binding and press work
- Paper
- Postage, freight, and express and other costs of distribution

Advertising Costs
- Expense of home and branch office organization
- Salaries, commissions, and traveling expenses of salesmen
- Expense of advertising promotion and research departments plus all costs of servicing advertisers with sales aids or sales presentations
- Expense of the merchandising services given to advertisers and prospects
- Bad debts, allowances, and collection expense
- Office expense

Editorial Costs
- Salaries, traveling expenses of the editors and their staffs
- Cost of contributions by others than on the staff
- Art work, photos, illustrations and engravings
- Branch office cost
- Office expense

Subscription and Newsstand Costs
- Costs of the various types of each of the subscription orders (new, renewal, mail, field, agencies, etc.)
- Costs of the newsstand promotion
- Costs of fulfilling subscriptions

Administrative Expenses
- Administrative salaries
- Rent, light, depreciation and other occupancy costs,
- General expenses
  - Total Expenses

Such a grouping of income and disbursements obviously falls far short of the necessities of those houses seeking a great deal more

information and further analysis of income. It is intended only to illustrate the operation of the principles involved.

Operating Statistics Are Essential

Ordinary profit and loss statements of publishers do not fully disclose trends in operating costs. Therefore, cost analysis is essential in most publications. A typical cost study maintained constantly by a magazine of average size would secure at least this much information:

Relation of the individual costs listed in the previously given typical operating statement to the advertising income—and very often to the total income from advertising and copy sales of all types

Profit obtained from subscription, single copy, and bulk magazine sales for each type of order solicited

For the production of the magazine

- Cost per thousand pages for each of these: press work, binding, printing, postage and other delivery costs
- Cost per thousand pages for the editorial pages and the total advertising pages
- Statistical record to show how the print order was distributed as between subscribers, newsstand delivery, overruns, free lists, bulk or single copy sales, and all other types of distribution

For the advertising solicitation

- Statistical record to show the types of advertisers (by size, or perhaps by color of printed pages) the number of advertisers, the average page size used
- Average income per paid page
- Costs per paid page—usually divided into the major headings set up in the typical operating statement

For the subscription solicitation

- Statistical data to show the changes in new and renewal business and the source of orders (mail, field, agencies, other methods)
- Cost of obtaining orders from each of the foregoing sources (usually in terms of cost per order)
- Fulfillment cost per order

For the newsstand sales

- Statistical data to show the delivery to the news companies and the sales history
- Cost of distribution and promotion per thousand copies

For the editorial activities

- Statistical record of number of editorial pages
- Cost per editorial page for various types of costs listed in the operating statement and for the total

The administrative expense includes those costs which are beyond the direction of the operating departments; for example, the

officers' salaries, general salaries, rent, light, depreciation, traveling of executives, accounting, professional services, and that portion of telephone, stationery, and similar costs which have not been directly charged to the operating departments.

Account Classification

The following discussion of detailed accounts is prepared on the basis of one publication. The publisher of several publications will generally use the same departments and expense classification within each paper. Each paper will generally be charged with those expenses which can be directly allocated to it. Overhead expenses which are not directly chargeable will then be spread over the individual papers.

Building an expense classification for a magazine requires the division of the income into its proper classes and then the division of expenses into the five departments previously described with definite spreads of numerical or mnemonic symbolizations. For instance, we may say—

Number	*Will Designate*
101–199	All accounts involving income, including the cost of services rendered to advertisers
201–299	Production and distribution expenses
301–399	Advertising, promotion and direct selling costs
401–499	Editorial costs
501–599	Circulation costs
601–699	Administrative expenses
701–799	Balance sheet accounts

Where more than one paper is involved, each publication would then be given a letter as a prefix to the symbol. Thus A–101 would be advertising display income for Paper A, B–101 the same for paper B, and so on.

With these fundamental groups we can proceed to subdivide them into the actual income and expense accounts to be created upon the ledgers.

Account Number	*Income from Advertising*
101	Black and white display space
102	Color pages
103	Inserts
104	Cover income
105	Classified space

	Income from Circulation
111	Mail sales—new
112	Mail sales—renewal
113	Field sales—new
114	Field sales—renewal
115	Newsstand sales
116	Other sources
	Income from Services
121	Sale of art work and illustrations
122	Sale of engravings and plates
123	Sale of reprints and royalties
124	Other sources

At this stage we can also set down account designations for those income factors which are not usually found in the operating statement of a publication:

Account Number	*Income from*
131	Book sales
132	List sales
133	Interest
134	Discount
135	Wastepaper sales
136	Cash discounts earned
137	Other financial income
138	Miscellaneous income

and so on, so that there is created the entire group of revenue sources.

In some instances, adjusting entries to income accounts are made directly. Common practice also sets up a specific account number for these to facilitate analysis. Such a grouping might be:

Account Number	*Advertising*
151	Short rates
152	Frequency rebates
153	Guarantee rebates
154	Advertising allowances
155	Cash discounts to advertisers
	Circulation
156	Newsstand returns
157	Charges by news company on returns
	Services Sold
158	Cost of art work sold
159	Cost of engravings sold
160	Cost of reprints sold

Expense accounts later are indicated in the following expense classification.

Suggested Brief Expense Classification

	Production and Distribution Costs	Advertising Promotion and Selling Costs	Editorial Costs	Subscription Sales and Fulfillment Costs	Overhead
1. Advertising or Mailing Pieces	201				
2. Advertising in Other Media		302		502	602
*3. Art Work, Photographs and Other Illustrations		303	403		
4. Bad Debts and Allowances					604
5. Binding Publication	205				
6. Branch Office Expenses		306	406		
7. Charities					607
8. Circulars		308		508	
9. Dues and Memberships		309			609
10. Collection Expense		310			610
11. Copy Service		311			
12. Commissions		312		512	
*13. Composition for Magazine	213				
*14. Contribution by Outsiders to Editorial Pages			414		
15. Conventions		315			
16. Depreciation					616
17. Editorial Testing Laboratories			417		
18. Engravings or Plates	218	318	418		
19. Exchanges and Clippings			419		
20. Exchange Cost on Checks					626
21. Freight and Express on Paper	221				
22. Freight and Express in Distribution of Issues	222				
23. Icing, Towels and Water for Office	223	323	423	523	623
24. Insurance	224	324	424	524	624
25. Legal, Accounting, and Professional Costs	225	325	425	525	625
26. List Building Expense				526	
*27. Mailing Costs in Stencils, Supplies, Machine Rentals, etc.				527	627
*28. Miscellaneous	228	328	428	528	628
29. Paper for magazine	229				
*30. Pensions and Profit Sharing Benefits					630
31. Postage—Bulk (Mailing Copies)	231				
32. Postage—Office Use	232	332	432	532	632
33. Postage—Renewal Notices				533	
34. Postage—Circulars and Promotion				534	
35. Premiums				535	
*36. Press Work for Magazine	236				
*37. Promotion in Extending Business		337		537	
38. Rent, Light, and Other Occupancy Cost					638
39. Renewal Bills and Circulars				539	
40. Repairs and Maintenance					640
*41. Reprints and Other Service Income Cost		341			
42. Research and Surveys	242	342	442	542	642
*43. Salaries	243	343	443	543	643
*44. Services and Aids to Advertisers		344			
*45. Supper Money and Other Pay	245	345	445	545	645
*46. Stationery and Supplies	246	346	446	546	646
47. Taxes on Payrolls	247	347	447	547	647
48. Telephone and Telegraph	248	348	448	548	648
49. Traveling and Entertainment	249	349	449	549	649
50. Wrappers and Other Mailing Materials	250				

* These are usually divided into a great many other accounts—as the text indicates.

Balance Sheet

A few items usually appearing on the balance sheet of a magazine publisher require special consideration.

1. Practice varies in the handling of receivables. Although those due from advertisers are included in full (net of commissions due to agencies), accounts with subscribers are generally carried only in memorandum form and not deemed a balance sheet asset. The hazards of collection suggest that they be removed unless appropriate reserves are established. Amounts due from news companies handling newsstand sales are included as current assets, net of estimated returns.

2. Publishers' inventories include paper and supplies. Practice varies as to treatment of art work, photos, manuscripts, and other material purchased for advance issues. Conservative practice suggests that these be handled as deferred expenses, even though they fit into the usual class of work in process accounts. The same is true of a great many other costs entering the publishing scheme—advertising expenses upon succeeding issues, circulation solicitation upon deferred income, etc. When these are maintained, they are deemed a deferred expense, rather than inventory. Current tax rulings require that publishers using accrual subscription accounting defer solicitation costs to conform with income earned.

3. As previously indicated, there are many methods used in treating the statement of deferred income resulting from the prepayment by subscribers. Sometimes there is a regular accounting of all proceeds into the month in which each part of each dollar received from the subscriber belongs. The exact opposite is used—all income from subscribers is taken into the accounts in the month in which it is received. The result is that there is no deferred income or statement of the obligation to the subscriber on the balance sheet, whereas the first method permits an exact statement of the obligation. And there are many variations. This method avoids the need for setting up deferred charges for the solicitation cost to get subscriptions. And it avoids a great deal of controversy with the government in tax matters. When this is done, some publishers set up a balance sheet account to express the possible liability to their subscribers.

4. In magazine publishing, all assets intended to express the cost

or value of a magazine, its subscription lists, copyrights, or goodwill, etc., are deemed intangibles and grouped. They are not included as fixed assets.

The balance sheet usually has this form:

Assets		
Current Assets		
Cash	$	
Cash on Hand		
Notes Receivable, less Reserves		
Advertisers' Accounts, less Reserves for Bad Debts, Adjustments and Agency Commissions Payable		
Newsstand Receivables, less Reserves		
Inventories of Paper and Supplies		
Total Current Assets		$
Other Assets		
Post Office and Miscellaneous Deposits	$	
Advances to Authors and Employees, less Reserves		
Prepaid Expenses		
Deferred Expenses on Future Issues		
Fixed Assets, at Cost		
Printing, Machinery and Equipment	$	
Furniture, Fixtures and Miscellaneous Equipment		
	$	
Less: Reserves for Depreciation		
Cost of Publication—Subscription Lists, Trademarks, Copyrights, and Goodwill		
		$
Liabilities		
Current Liabilities		
Notes Payable	$	
Accounts Payable		
Accrued Taxes, Interest, etc.		
Total Current Liabilities		$
Newsdealer and Other Deposits		
Unearned Income—Advertising, Subscriptions, Etc.		
Funded Debt		
Capital Stock		
Surplus		
		$

Bookkeeping Methods

The bookkeeping system of a magazine publisher generally includes the following records to which transactions are posted from the books of original entry.

The General Ledger contains the record of assets, liabilities, capital, and surplus, and the controlling accounts for the income and expense of each publication.

The Expense Ledger contains the record of the expenses of each publication segregated by departments, as previously described.

The Advertiser's Ledger is the detailed record of transactions with each customer (usually a separate ledger for each publication). In the case of subscription receivables, a card record of file of duplicate bills often serves in place of this ledger.

The Inventory Record is a record of the amounts and kind of paper in the hands of the printer, which is checked periodically with a paper report rendered by the printer. Other supplies are handled on the usual perpetual inventory arrangement.

The Deferred Ledger is a record of the various expenses which are to be deferred to a future period or charged against a future issue of the paper.

Fixed Assets is a register of the furniture, fixtures, and plant owned.

The Creditor's Record is a cross-index file of vouchers paid to each creditor, if the voucher system is maintained, or a detailed record of transactions in an accounts payable ledger.

The Payroll Record is a ledger or a card record for keeping the information necessary to prepare the social security tax returns in conformity with the Wage and Hour Law.

The Subscription Records vary enormously. Generally sought is a stencil or card record to get the names, addresses, and occupations of the subscribers, the period of their subscriptions, an easy way to compute the unexpired subscriptions, the source of the order —perhaps a great deal more.

Advertising Billing Cards are often used for each advertiser showing the data on his contract, a record of the space run, and the amount billed for each advertisement.

Marked Copies of each issue of the paper are often kept by the accounting department to show the amount to be billed to each advertiser on the face of his advertisement. This marked copy is retained as legal proof of insertion. It also insures that every advertisement in the paper has been accounted for and billed to an advertiser unless it is free space. From the marked copy the information is entered on the billing card which is used by the

clerks in preparing the invoices to advertisers. A similar marked copy is often used by the business and editorial departments to verify such costs as engravings, paper, printing, and editorial disbursements.

ACCOUNTING FOR MANUFACTURERS OF DAIRY PRODUCTS

By

JAMES A. SMITH *

BRIEF DESCRIPTION OF BUSINESS

Handling dairy products from producer to consumer plays a vital part in the maintenance of the food supply of the nation. The work of the dairyman or producer is only a small part of the machinery needed to convert the agricultural resources of our country into a constant supply of dairy products so essential to the food requirements of our urban population. Collectively, however, the production of many dairies provides an unfailing source of milk, cream, butter, and other commodities.

The individual dairyman could not very well possess the facilities necessary to the protection of dairy foods from farm to consumer. It is only through organization and the combining of resources that any but a local, and therefore hazardous, market can be obtained. Hence, it is the function of the creamery to centralize the handling of production from many sources and to transmute this production into a steady stream of products through processing and manufacture, thereby providing an otherwise unavailable market for the dairy farmer.

The creamery makes contracts with individuals or producer organizations in order to absorb the entire output of the dairy. This is done to assume a uniform flow of raw material. To insure the flow, creameries must be so located as to make possible the economic delivery of production from farm to plant facility.

Delivery of production may be accomplished by the use of a pickup fleet owned and operated by the creamery, gathering milk and cream from strategically located stations where individuals deposit their cans; or it may be done by having the producer supply

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his own transportation either by himself or by joining a group. Express truck or train, if schedules are available, are also extensively used, particularly when refrigeration is required.

Whatever the mode of delivery, the value of the butterfat contained in the milk or cream is the basis most widely used for computing the cream check due the producer. The base price of butterfat is usually computed on the "delivered price" at the creamery.

The delivered price basis may be increased for premium product or decreased when production is below standard. The cost of transporting is a vital element so that, whatever mode of delivery is used, the dairyman pays the freight, the cost being reflected in the delivered price. Since the delivered price of butterfat per pound is the initial measure of production value, it is logical that the butterfat basis should become the measure of cost for all products of the creamery through the manufacture or conversion stage.

The necessity for accurate cost determination presents many accounting problems that can be answered only through special accounting methods.

Theory of Accounts

The Expense Flow Chart, herewith presented as Exhibit A, shows the manner in which direct expenses flow through the general ledger to proper accounts for the control of production, selling, and administration costs.

Accounts T-200, 500, and 600 are gathering accounts for expenses which are to be prorated to other expense accounts, and are not charged directly to either C-100, C-200, or E-100.

T-200, Truck Fleet expense, receives direct charges from originating sources and in addition receives prorata distributions from T-500 and T-600 before its accumulated total is prorated to other expense accounts. If the truck fleet is used only for hauling production to the plant, then, of course, the total is transferable direct to T-100, buying and gathering, from which it reaches Prime Cost. But if the fleet is used for both in-haul and sales delivery, then T-200 should be prorated to T-100 and T-1200 on the basis of truck use of the various units for each activity. Likewise Depreciation, T-500 is distributable over T-100, 200, 700, 800, and E-300.

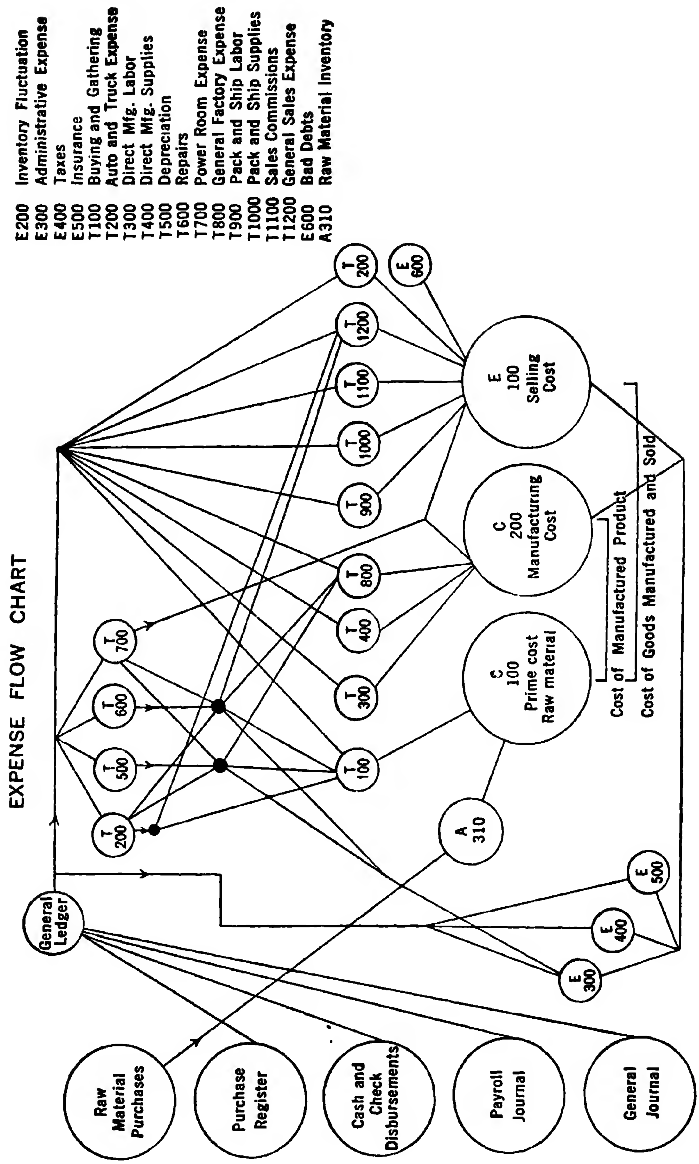
EXPENSE FLOW CHART
E200 Inventory Fluctuation
E300 Administrative Expense
E400 Taxes
E500 Insurance
T100 Buying and Gathering
T200 Auto and Truck Expense
T300 Direct Mfg. Labor
T400 Direct Mfg. Supplies
T500 Depreciation
T600 Repairs
T700 Power Room Expense
T800 General Factory Expense
T900 Pack and Ship Labor
T1000 Pack and Ship Supplies
T1100 Sales Commissions
T1200 General Sales Expense
E600 Bad Debts
A310 Raw Material Inventory
General Ledger
Raw Material Purchases
Purchase Register
Cash and Check Disbursements
Payroll Journal
General Journal
T 200
T 500
T 600
T 700
T 100
T 300
T 400
T 800
T 900
T 1000
T 1100
T 1200
T 200
E 600
A 310
E 300
E 400
E 500
C 100 Prime cost Raw material
C 200 Manufacturing Cost
E 100 Selling Cost
Cost of Manufactured Product
Cost of Goods Manufactured and Sold

Exhibit A.

The cost of repairs accumulated in account T-600 is likewise prorated.

The basis of proration is determinable from the records. Thus, all manufacturing costs are distributed in account C-200, by products made or processed, although the original base of direct cost may differ for various expense groups.

Direct expenses T-300 and T-400 are divided on the basis of commodities on which the labor or supply was consumed. On the other hand, power-room expense is prorated by power consumed on various manufacturing machines, refrigeration use, steam use, or other suitable base, and is charged to commodities made.

Basis of Proration

The basis of prorating various types of expense may be determined from a close study of the products manufactured, the facilities utilized, the degree of control over power consumption and other factors involved. To declare that a given base is universally correct is to deny that one plant differs from another.

The nature of the product, the scope of operation, and the extent of accounting control differ in various plants. A plant producing butter and cheese only will certainly present a problem in proration that differs from one in which milk-route delivery of bulk or bottled processed raw material is combined with the manufacture and sale of butter, cheese, cottage cheese, milk powders, ice-cream mixtures, and casein.

The basis of proration should, therefore, be determined by the accountant in charge to fit the plant operation. With a sound accounting system and classification as a base, all problems in cost finding can be solved in a manner satisfactory to the management. The elements of cost having been arrived at, all treatment thereof becomes a matter of application.

Some accountants consider overhead a proper cost of production and selling; others prefer to prorate certain portions thereof, such as taxes, insurance, and direct management. In the methods herein displayed, the overhead accounts E-300, 400, and 500 are set out and may be prorated if desired to the ultimate cost of products.

Inventories Affected by Cost

If inventories are to be carried at cost, it is obvious that cost must be determined. Therefore, all raw material purchases are

charged directly to inventory of raw material, A-310, from which raw material total is withdrawn and charged to C-100, together with the cost of buying, gathering, and receiving. When the poundage of butterfat is divided into C-100, the prime cost per pound of such butterfat is determined. The poundage inventory on hand is then priced at prime cost and credited to C-100, charged to A-310. C-100 then contains only the prime cost of raw material processed.

Finished products, having had the cost determined by adding prime cost to manufacturing cost, allocated by commodities, are charged to the commodity inventories and withdrawn in theory only. The actual practice consists of debiting or crediting the manufacturing cost, allocated by products made, to the inventory only for the difference in inventory at the end of period, thus leaving accounts C-100, C-200, and E-100 with the cost of goods manufactured and sold.

To illustrate: suppose the inventory of butter was set at the beginning as 100# of a value of 30 cents per pound, $30.00. The make is 10,000# at a cost of 28 cents—$2,800.00. The inventory at the end, being 200#, the value 28 cents, or $56.00. The journal entry, then is:

Inventory, butter	$26.00	
Inventory fluctuations (butter)		$26.00

It will be seen that the inventory fluctuation account by this means absorbs the inventory increase or decrease, and is included in the presentation of costs.

The operating statement, therefore, does not show the usual order of inventory beginning, plus purchases or manufacture, less inventory ending, but instead appears as follows:

Sales Income (by products)		xxxx
Cost of Sales		
Cost of Raw Material (C-100)	xxxx	
Cost of Manufacture (C-200)	xxxx	
Total	xxxx	
Inventory Fluctuation (plus or minus)	xxx	
Cost of Goods Manufactured and Sold	xxxx	xxxx
Gross Profit on Manufactured and Sold		xxx
Selling Expenses (E-100)		xxx
Net Profit on Sales		xx

The presentation of cost sheets, will, of course, consist of a tabulated set of figures taken from the final gathering accounts C-100, C-200, E-100, by commodities, aligned in columns.

Throughout the accounting, both the elements of weight, or unit, should be maintained along with total monetary values. By the use of the analysis ledger sheet, the information would appear as follows:

Inventory Beginning	Purchases	Made Goods	Total	Used or Sold	Ending Inventory
Pounds	Pounds	Pounds	Pounds	Pounds	Pounds

Similar headings would contain money values of the pounds, gallons, or other units, depending on the unit classification required for the account.

Accounts Required

The accompanying chart of accounts is suggested for its flexibility in meeting problems arising in creamery operation.

The operating statement and balance sheet forms are indicated in the Chart of Accounts.

Chart of Accounts
for Concerns
Manufacturing Dairy Products
(Not including Condensed Milk)

Major Classifications

A–100, 200 etc.	Assets
L–100, 200 etc.	Liabilities
S–100, 200 etc.	Income
C–100, 200 etc.	Costs
E–100, 200 etc.	Expenses
T–100, 200 etc.	Clearing Accounts

A . . . . *Asset Accounts*

A–100—Cash
- 110—Deposit—Bank—Regular a/c
- 120—Deposit—Bank—Payroll a/c
- 130—Cash on Hand for Deposit
- 140—Cash in Transit
- 190—Imprest Funds

A–200—Receivables
- 210—Notes Receivable
- 220—Loans to Patrons
- 230—Customers' Accounts
- 240—Miscellaneous Accounts
- 290—Guaranty Deposits

A-300—Inventories
310—Raw Materials
311–312–313, etc., Butterfat, whole milk, sweet cream, etc.
320—Finished Products
321–322, etc., Butter, cheese, cottage cheese, buttermilk, casein, milk powder, etc.
330—Manufacturing Supplies
331–332, etc., Rennet, sugar, salt
340—Packaging and Shipping Supplies
341–342, etc., Cartons, containers, wraps, labels, etc.
A-400—Investments
410—Stocks, other companies
420—Bonds
430—Mortgages
440—Nonbusiness Real Estate
450—Cash Value of Life Insurance Policies
A-500—Fixed Assets
510—Land (used in business) Including Roadways
520—Buildings
530—Machinery and Equipment
540—Autos and Trucks
550—Horses and Wagons
560—Furniture and Fixtures
570—Shipping—Receiving Containers
580—
590—Tenants' Improvements
Note: 511–512; 521–522, etc., are used for subdividing assets by classes, use, or year of acquisition
A-600—Reserve for Depreciation and Amortization
610—620—630, etc. together with subclassification numbers are used to correspond with the A-500 accounts to which they apply
A-700—Prepaid Expense
710—Prepaid Rent or Leases
720—Prepaid Interest
730—Prepaid Taxes
740—Unearned Insurance Premiums
A-800—Deferred Charges
810—Advertising
820—Maintenance Supplies
830—Taxes
A-900—Other Assets
910—Patents, Trade marks, Trade names
920—Capitalized Organization Expense
930—Accounts Officers and Employees
940—Slow Accounts, notes past due, etc.
950—Claims and Judgments
L . . . . *Liability Accounts*
L-100—Notes Payable
110—Notes Payable—Secured
120—Notes Payable—Unsecured

130—Contracts Payable for Equipment
140—Notes Payable—Miscellaneous
L-200—Accounts Payable
210—Trade Creditors
220—Patrons Butterfat Accounts
230—Taxes assessed (not accruals)
231—Property Taxes
232—Federal Income Taxes
233—Federal Miscellaneous Taxes (No payroll)
234—State Income Taxes
235—State Sales Taxes
240—Dividends Declared
L-300—Trust Liabilities
310—F.O.A.B. Tax Collected from Employees
320—Other Trust Accounts
L-400—Accrued Liabilities
410—Labor Payrolls
420—Unemployment Compensation
421—Federal
422—State
430—Federal Old Age Benefits—Company Portion
440—Interest
450—Taxes
451—Property Taxes
452—Federal Income Taxes
453—Federal Capital Stock Tax
454—State Income Tax
455—Miscellaneous Licenses
460—Insurance
461—Fire Isurance
462—Miscellaneous Insurance
463—Workmen's Compensation Insurance
L-500—Term (Fixed) Liabilities
510—Mortgages on Plant Property
520—Mortgages—other (not for equipment contracts)
L-600—Valuation Reserves
610—Reserve for Bad Accounts
620—Reserve for Judgments
630—Reserve for Contingencies
L-900—Capital Accounts
910—Capital Stock—common—issued
920—Capital Stock—preferred—issued
930—Capital Debentures
940—Capital Surplus
950—Earned Surplus
990—Current Year's Profit and Loss
S . . . . Income
S-100—Sales
110—Manufactured Products—Sold
111-112—Butter, cheese, casein, powdered milk, etc.

120—Processed Products—Sold
121–122, etc.—Whole Milk, cream, eggs, ice, etc.
130—Other Operating Income
131–132, etc.—Shop Work, supplies, stores, testing, etc.
140—Storage
141—Cold
142—Other
S–200—Other Income
210—Sale of Assets
211—Selling Price of Asset
212—Depreciation Taken on Assets Sold
213—Sale of Junked Equipment
220—Rents
221—Tenant Houses
222—Sites
223—Land Lease
224—Equipment
230—Interest
240—Discounts Taken
250—Undelivered or Unclaimed Checks
260—Recovery on Accounts Charged Off
270—Sales Tax Collected on Sales

C . . . . Cost of Production

C–100—Prime Cost Raw Material Consumed
a–b–c–d, etc., designate product. Distribution of total is by raw material used in each.
Note: Entries to this account come from Raw Meterial Inventory A310, Buying and Gathering, T–100.

C–200—Making (Manufacturing) Cost
a–b–c–d, etc., designate products. Distribution of total is by direct expense or prorated costs in each.
Note: Entries are assembled from Manufacturing Labor T–300, Manufacturing Supplies T–400, Depreciation T–500, Repair T–600, Power-Room Expense T–700, General Factory Expense T–800.

E . . . . Expenses

E–100—Selling Expenses
a–b–c–d, etc., designate products—Distribution of total is by direct expense or prorated costs.
Note: Entries are assembled from Shipping Labor T–900, Shipping Supplies T–1000, Sales Commission T–1100, Indirect Selling Expenses T–1200, Power Room Expense T–700, Depreciation T–500, Repairs T–600, General Factory Expense T–800.

E–200—Inventory Fluctuation Account
a–b–c–d, etc., fluctuation by commodities

E–300—Administrative Expense
301—Salaries of Management
302—Salaries Office Personnel
303—Stationery, Printing and Supplies

304—Communications
305—Professional Services
306—Organization Dues
307—Subscriptions
308—Contributions
309—Travel
310—Office Repairs
311—Office Depreciation
312—Office Auto Expense and Allowances
313—Credit and Collection Expense
Other accounts as suggested in specific installations

E–400—Taxes
401—State, County, City Property Tax
402—Miscellaneous Business Licenses—local
403—Federal Capital Stock Tax
404—Federal O.A.B. Tax
405—Federal Unemployment Compensation
406—State Unemployment Compensation
407—Federal Income Tax
408—State Income Tax

E–500—Insurance
501—Fire
502—Boiler
503—Public Liability—general
504—Fidelity Bonds
505—Workmen's Compensation
506—Miscellaneous

E–600—Other Deductions
610—Cost of Selling Assets
611—Cost of Assets Sold
612—Expense of Selling Assets
613—Cost of Junk Equipment Sales
620—Expense Rent Property
621—Repair Tenant Property
622—Taxes Tenant Property
623—Depreciation Tenant Property
624—Expense of Leased and Tenant Property
630—Interest Paid
640—Discounts Allowed
650—Reissued Checks Previously Written Off
660—Bad Debts
670—Sales Tax Paid

T . . . . Clearing Accounts

T–100—Buying and Gathering—Raw Material
101—Salary of Buyers and Supply Supervisors
102—Salaries of Receivers and Weighers
103—Salaries of Testers
104—Contract Hauling
105—Hauling by own Fleet (from T–200)
106—Incoming Freight

107—Expense—fieldmen
108—Butterfat Supply Promotion
109—Commissions of Butterfat Purchase
110—Depreciation—Receiving Room Building
111—Depreciation—Receiving Room Equipment
112—Depreciation—Roadways
113—Repair Receiving Room and Equipment

T–200—Auto and Truck Fleet Expenses

201—Drivers' Wages
202—Drivers' Expense
203—Gas, oil, grease
204—Tires
205—Own Repairs—Labor
206—Own Repairs—Materials
207—Contract Repairs
208—Depreciation of Equipment
209—Depreciation of Garage
210—Depreciation of Garage Equipment
Note: Expense divided between T–105 and T–1202

T–300—Manufacturing Labor

a–b–c–d, etc., designate product on which labor distributed
Note: Transfer to C–200 and distribute to 200a–b–c, etc.

T–400—Manufacturing Supplies

a–b–c–d, etc., designate products to which supplies were assigned
Note: Transfer to C–200 and distribute to 200a–b–c, etc.

T–500—Depreciation

501—Building (Including amortization of tenant improvements)
502—Receiving Equipment
503—Making Equipment
504—Packaging Equipment
505—Auto and Truck Equipment
506—Garage Equipment
507—Office Equipment
508—Tenant Properties
Note: Distribute by direct group or by proration to all other accounts affected by depreciation. Building depreciation may be allocated on area occupied or by value

T–600—Repairs

601—Buildings
602—Receiving Equipment
603—Making Equipment
604—Packaging Equipment
605—Office Equipment
Distribute by direct group or by proration to all other accounts affected by repairs. Note that truck repairs are not cleared through this account

T–700—Power Room Expense

701—Labor
702—Water
703—Electric Power and Light

704—Fuel
705—Power Room Supplies
706—Refrigeration Supplies
707—Repair—Power Machinery and Pipe Lines
708—Depreciation Power Building (if separate)
709—Depreciation Power Machinery
710—Depreciation Water Towers, Wells, and Pumps
Transfer to accounts affected on basis of butterfat processed, actual steam consumer by departments or other suitable basis

T-800—General Factory Expense
801—General Supervision
802—Maintenance Labor
803—Maintenance Supplies
804—General Supplies
805—Laboratory Labor
806—Laboratory Supplies
807—Laundry
808—Repair—General Buildings
809—Repair—General Equipment
810—Depreciation—General Buildings
811—Depreciation—General Equipment
Transfer to accounts affected on butterfat processed basis by products

T-900—Packaging and Shipping Labor
a–b–c–d, etc., designate commodities. Distribute on basis of direct labor
Transfer to account E–100 by commodities

T-1000—Packaging and Shipping Supplies
a–b–c–d, etc., designate commodities. Distribute on direct supplies consumed
Transfer to Account E–100 by commodities

T-1100—Sales Commission
a–b–c–d, etc., designate commodities. Distribute on direct application to product sold
Transfer to Account E–100 by commodities

T-1200—Other General Selling Costs
1201—Outgoing Freight and Express
1202—Hauling by own Trucks (from T–200)
1203—Advertising
1204—Free Samples and Policy Adjustments
1205—Shipping Container Loss and Expense
1206—Repair to Packaging Equipment
1207—Depreciation of Packaging Equipment
Transfer to affected accounts by group or by individual account on suitable basis of tonnage, dollar value or by direct allocation.

Bookkeeping Methods

Adequate accounting facilities having been provided, the operation of the control of production through the accounts becomes a problem of maintaining records and transmitting information from

the front office to the plant foremen. Records originate at locations throughout the plant, are transmitted to the accounting department, co-ordinated and compiled. The results obtained are communicated to the management.

Patrons Records in the Receiving Room

Patrons deliver their production in the familiar 10-gallon cans, which are usually owned by the creamery and loaned to the patron. Each patron is assigned a number which appears on his cans. He is therefore identified by number on all records made of transactions between him and the creamery.

The receiving room, where production is delivered, is provided with a record of all patrons (both name and number) usually in the form of a double-card system, one card indexed by number and the other alphabetically. Each is cross-indexed to the other. Cards are made in the front office and the file is kept current, to avoid duplicate assignments of numbers.

A weigh-sheet is kept by the receiver, on which he enters the number of the can being dumped on receiving scales, thereby identifying the patron who is to receive credit. In proper columns, the weight of the delivery, the number of cans in the delivery, and the class of production being received, are noted. It is preferable to have the numbers printed in consecutive order on the weigh-sheet for later ease in following the record. The weigh-sheet must either show the type of delivery, that is, sweet cream, A milk, sour cream, etc., or a separate weigh-sheet must be used for each type. The latter method is preferable.

The weigh-sheet, when completed, is sent at once to the testing laboratory, where the butterfat content is determined from samples taken by the receiver at the time of delivery. These accompany the weigh-sheet in bottles corresponding in number.

After the tests are entered, the sheets are transmitted to the accounting department where the quantity of butterfat in each delivery is computed. All weigh-sheets are then totaled for weight and butterfat, and entered in the "raw material received" journal summarized by classes of delivery. The weigh-sheet provides the detail from which each patron is credited in the individual patron's ledger with quantities only. Price to be paid is not entered at this time.

An example of a patron's ledger is shown at Exhibit B.

BUTTERFAT DAIRY PRODUCTS COMPANY
SUSSEX, U. S. A.

STATEMENT OF BUTTER-FAT IN

______ FOR ______ 19____
MILK OR CREAM   MONTH

NO.________

DATE	WEIGHT	TEST	POUNDS B. F.	DATE	WEIGHT	TEST	POUNDS B. F.	RECAPITULATION OF PERIODS DATE	WEIGHT	TEST	B. F.	PRICE	AMOUNT CREDITS
8				1				1-7					
								8-15					
9				2				16-23					
								24-31					
10				3				TOTAL					
11				4									
12				5					TOTAL CREDITS				
								DATE	DEDUCTIONS				CHARGES
13				6					LBS. BUTTER				
									LBS. CHEESE				
14				7									
15													
8-15				1-7									
24				16									
25				17									
26				18									
27				19									
28				20									
29				21									
30				22									
31				23									
24-31				16-23					TOTAL DEDUCTIONS				
									NET AMOUNT DUE				

Exhibit B.

List of Records Required

Receiving room:
- Weigh-sheet
- Patron's can record

Testing room:
- Tester's record of patron tests
- Tester's record of plant product tests
- Experimental test records

Power Plant:
- Fuel records and steam charts
- Steam consumption output and utilization
- Electrical output and utilization
- Refrigeration output and utilization

Manufacturing Department:
- Raw material used in manufacture or processing
- Supplies used in manufacture or processing
- Inter-departmental transfers
- Stores receipts and issues
- Time records
- Production reports

Shipping Department:
- Manufactured or processed products placed in storage
- Loading-out and return check sheet
- Shipping container out-and-in record
- Shipping supply record

General Office:
- Raw material received journal
- Purchase journal (requisitions and goods received)
- Sales journal
- Cash receipts journal
- Cash disbursement journal
- Payroll journal
- General journal
- General ledger
- Patron's ledger
- Accounts receivable ledger
- Accounts payable ledger
- Employees' ledger and social security records
- Cost records

ACCOUNTING FOR THE MANUFACTURE OF LARGE MACHINES

By

ALBERT J. BUCKENMEYER *

BRIEF DESCRIPTION OF BUSINESS

This section is interested in the manufacture of heavy machines specially designed to customer's specifications or to use in a process specified by the customer. Although this might include machines manufactured completely within the producer's plant, the following discussion concerns particularly production that takes place partly in the producer's factory and partly in the customer's plant. In the manufacturer's plant the various parts of the machines are made and assembled into sections as large as can conveniently be shipped. These sections, together with other materials shipped direct from vendors' plants to the job location, are then made into a finished machine by a field construction crew. Acceptance by the customer is dependent upon successful operating tests under normal operating conditions.

The product is often mechanically complex and the process for which it is used is often highly technical. Technically trained engineers are required in almost every branch of the business from the sales to the design and experimental departments. On account of the technical nature of the product, the salesmen are usually highly trained technical men capable of following the details of the orders through the design stage. In this business there must be unusually close cooperation between the sales, engineering, and production departments, including the proposal, design, factory, field construction, and experimental departments.

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Theory of Accounts

The heavy machine manufacturer is interested in securing from his accounting system the usual financial statements and management reports, the required government reports, and accurate cost and progress reports on the contracts in process and those completed. The methods of accumulating the costs will vary with the different companies, but the type of information compiled and the use made of this information will be substantially the same for all. The methods used are discussed in more detail below.

Cost Accounting

1. Where machines are large but of standard design, it is possible to use standard or operation costs which present no accounting problems different from those for manufacturing any standard product.

2. Where equipment is specially designed and constructed, a job cost system is indicated.

a. All quotations included in proposals are built up from estimates based on the company's experience. From prior costs certain rule-of-thumb standards or averages are worked out for quick application in estimating quantities or costs of material, labor, and production overheads. Where quantities are estimated they then are costed and the costs converted to selling price by factors calculated to cover administration, distribution, experimental and other expenses plus profit. Conversion from cost to selling price may be made by using a single factor applied to total costs or by several different factors applied to different component elements of cost. The main peculiarity of quoting on this type of production is that pricing is a continuous operation, and not periodical as in most lines of business. Consequently, it is tremendously important that costs on which estimates are based are continuously up to date, accurate, and in usable form to insure correct estimates and, consequently, correct pricing.

b. The estimates are given in detail by types of material and labor, parts or sections of the machine, or other suitable classification in such a way that costs of actual production can be accumulated for the same items and compared with the estimates. This requirement is an important and essential part of a successful cost system for this type of manufacturing.

c. Jobs costs should include both direct and overhead costs of factory, field construction, and design departments. Material or labor purchased or used specially on a job should be charged to the job at actual cost. Standard parts going into the machine may be charged at standard costs where they are in use.

d. Accounts should reflect factory inventories separate from construction in process in the customer's plant because of the different treatment for balance sheet, tax, insurance, and other purposes. This method is accomplished by accumulating all factory costs in factory inventory accounts, and as the material is shipped from the factory to the job location, its cost is transferred by journal entry to the Field Construction in Process account and to the individual job cost records supporting that account.

e. The cost of each completed job of substantial size should be summarized as a matter of routine cost analysis and compared to the original estimates used in pricing the job. Any substantial differences should be analyzed and reported to the proper parties. Differences indicating the necessity of changes in estimating quantities or prices are especially important.

General Accounting

The principal peculiarity in the general accounts of this type of business arises from the fact that billings are normally made before jobs are completed. These and the costs of Construction in Process are deferred and carried as balance sheet accounts until the installations of the machines are completed and accepted by the customer. They are *then* closed to Sales and Cost of Sales. The accounting entries used to accomplish this result are discussed in detail under "Accounts Required," which follows.

Accounts Required

The operating accounts of a heavy machine manufacturer logically fall into two comprehensive groups: (1) Gross Profit and (2) Expense.

1. The gross profit accounts generally includes:

a. Sales account by types of sales or by kinds of machines, broken down either in the accounts or statistically.

b. Cost of Sales account with a breakdown parallel to that for Sales. These accounts receive the charges from inventory (mate-

rial and labor) and production overhead through the Construction in Process account which is supported by individual job costs.

c. The Production Overhead account consists of the indirect departmental expenses of those departments which work directly on the production of machines. This includes the design department, the factory departments, and the field construction department. The total charges to the individual contracts for each of these departments include both the direct and the overhead costs, the latter absorbed by whatever method is determined upon to distribute them on a most equitable basis. The amounts absorbed by production completed and sold find their way to the profit and loss statement as a part of cost of sales. That part absorbed by Inventory or Construction in Process finds its way to the balance sheet as a part of these accounts. The amount underabsorbed or overabsorbed by production usually appears as a separate item on the profit and loss statement under cost of sales.

2. Expense accounts generally include:

a. Administration and general office expenses

b. Sales, distribution and advertising expenses (including estimating, quotation, and proposal costs)

c. Experimental expenses

d. Other miscellaneous expenses

These expenses are not normally allocated on the books to individual contracts nor to classes or types of product sales. Such as breakdown is usually made statistically by analysis and proration.

In a manufacturing company the major part of many of the items of relatively fixed expenses, such as depreciation, rent, property and payroll taxes, and insurance is production expense and is included in the production department's overhead. The portion which is charged to this group of expenses is relatively small.

Payroll taxes and insurance, which are both in the production and the overhead departments, may be treated as overhead and charged to a separate account in each of the various department's expense account series. However, it is often desirable to treat it as an addition to payroll, charging it to the various inventory and expense accounts as a part of the payroll distribution since, in many cases, it varies almost directly with payroll.

A chart of accounts satisfactory for most companies is sum-

marized as follows, assuming 3-digit account numbers. Account numbers with more or less digits may be used as required:

001—009	Balance Sheet Accounts
100—199	Sales and Sales Returns and Allowances
200—299	Cost of Sales and Cost of Returns
300—399	Factory Departments
400—499	Drafting and Field Construction Departments
500—599	Sales Departments
600—699	Administration and Office Departments
700—799	Experimental Department
800—899	Nonoperating Income and Expense

In case it is desired to use subsidiary ledgers for income and expense accounts the 100, 200, 300, etc., accounts become the control accounts for the next 99 accounts.

Sales and cost of sales should be divided into various classes logical for the particular business. That might be by types of machines produced, the process for which they are designed, the outlets through which they are marketed, or by types of customers. The cost of sales group also includes the burden absorbed accounts for overabsorbed or underabsorbed overhead of production departments. These accounts are credited with the amounts of overhead absorbed by inventory or construction contracts and they are charged (and production departments credited) with the actual production departments' overhead expenses when the books are closed.

Typical series of accounts for the various departments are:

Factory Departments

301 Indirect Labor
302 Payroll Taxes and Insurance
303 Tools and Production Supplies
304 Repairs to Equipment
305 Power, Gas, and Water
306 Spoilage
307 Traveling
308 Office Supplies and Expense
309 Trucking
311 Depreciation, Insurance, Taxes, Rent
312 Miscellaneous Department Expense

Field Construction Department

(Similar Series for Design and Experimental Departments)

421 Indirect Payroll
422 Payroll Taxes and Insurance
423 Tools and Production Supplies
424 Drawing Paper, Blueprints, and Photostats
425 Traveling
426 Office Supplies and Expense
427 Building Expense or Rent
428 Miscellaneous Departmental Expense

In a small plant various functions, for example, "selling," will have only one series of expense accounts. A large company will

have, for example, various sales departments, each with a full series of expense accounts.

Deferred Billing and Cost Accounts

The accounting entries used in deferring the close-out of billings and costs until the contracts are completed are detailed below:

1. As costs are incurred in the field or transferred from the factory:
   Charge Construction in Process
   Credit Factory Inventory
   Labor
   Burden Absorbed
   Vendors
   To record costs on contracts in process (detailed by jobs).
2. As billings are made to the customer:
   Charge Customer
   Credit Billings on Incomplete Contracts
   To record billings made on jobs in process (detailed by jobs).
3. When jobs are completed and accepted by customer:
   a. *Charge* Billings on Incomplete Contracts
   Credit Sales
   To close to Sales the billings on jobs which have been completed and accepted by customers.
   b. *Charge* Cost of Sales
   Credit Construction in Process
   To close to Cost of Sales the costs incurred on jobs which have been completed and accepted by customers.

After entries (1) and (2) but before entries under (3) for any given contract, there appears on the books the debit account Construction in Process and the credit account Billings on Incomplete Contracts. The former represents the costs incurred to date on construction jobs which are still incomplete. The latter represents the amounts billed to the customers on those incompleted contracts that have not yet been closed to Sales.

There are several ways of showing these accounts on the balance sheet. If the debit account is limited to cost of work in customers' plants, it may be treated as a deferred charge to Cost of Sales. This presumes that Factory Costs are kept in Factory Inventory until the factory material is actually shipped to the customer's plant. The Billings on Incomplete Contracts are treated as a deferred credit to Sales. The logical way of showing them on the balance sheet, if this method is used, is to show the one account deducted from the other and list the net difference as a deferred charge or deferred credit to operations, depending on whether the

debit account or the credit account is the larger. Any portion still in the factory should, of course, show on the balance sheet as Factory Inventory.

Most published statements show Construction in Process as a separate account among the inventory accounts and deduct the Billings on Incomplete Contracts from the total Current Assets. This is a logical treatment of the Billing account since the debit amount of the entry from which it originated will probably still be in Accounts Receivable or in Cash or some other Current Asset account. However, Construction in Process in a customer's plant should not be considered as a true inventory account where the customer has already been billed, especially for various special purposes, such as tax and insurance reports.

The foregoing discussion presumes that the machines are sold as a completed unit, installed, tested, and ready to operate. It also presumes a complex, specially designed machine which may involve considerable costs to adjust, alter, and operate in order to finally place into satisfactory operation. Under these circumstances to close billings and costs to operations before final completion and acceptance is not a good practice because profits would then be shown on some jobs only to be wiped out later by additional costs which can be anticipated on a reasonable proportion of contracts.

When certain conditions hold it is proper to close to earnings the billings and costs on incomplete contracts proportionally as costs are incurred. This is true where the contracts are large, where the construction extends over a long period, and where the profits are earned with reasonable certainty proportionately as costs are incurred. A good example is the construction of a large building. While the building is still incomplete, the proportion that costs to date bear to total costs can be determined with reasonable accuracy. When it is finally completed, acceptance is the normal expectancy without other than minor changes or adjustments. However, in the case of a machine it is not certain that it will operate satisfactorily upon normal completion and there is a probability of extensive alterations and an uncertain amount of test operations on a portion of the contracts. For this reason the only safe and conservative method is to close billings and costs only upon completion and acceptance by the customer.

Service Reserves

On this type of manufacturing, where machines are often made to customer's specifications or to accomplish a result specified by the customer, there is often more than the usual amount of product servicing required. This servicing is usually quite expensive because it must be done at the location of the customer's plant; the size of the machines makes it impossible or impractical as a rule to return them to the factory. Those jobs which require such servicing cannot be determined in advance, yet the cost involved will often be sizable; and since this additional expense will occur after the contracts are closed to earnings, the costs as closed should include a charge to build up a reserve to which this servicing cost can be charged. Experience will show how much will have to be provided per dollar of sales, cost, or other base.

Operating Statements

The profit and loss statement of the heavy machine manufacturer will show the net sales and cost of sales for each class or type of sales, either on the principal statement or on supporting schedules. Allocations of sales, administration, and experimental expenses are usually made to product classes only statistically for control purposes. These expenses will show on the summary statement as expenses deductible from Gross Profit to arrive at Net Profit from Operations.

Statements showing overhead expenses of each production department, the amount absorbed by charges to inventory and construction, and the amount underabsorbed or overabsorbed, should be prepared each month for the current month and for the year to date. The aggregate of these under or overabsorbed overhead department amounts equals the amount on the profit and loss statement under Cost of Sales.

In addition, where contracts are of considerable size and importance, supplementary schedules will show for each individual job (or at least for each job differing substantially from the estimate in any particular) both the "original estimates" and "actuals" of sales, design cost, factory cost, field construction cost, service reserve charge, and gross profit. Important differences will be analyzed and explained.

Profit and Loss Summary

	This Year Month	This Year Year to Date	Last Year Month	Last Year Year to Date
Gross Sales				
Less Returns and Allowances				
Net Sales				
Gross Cost of Sales				
Less Returns				
Under or Overabsorbed Overhead				
Net Cost of Sales				
Gross Profit				
Selling Expense				
Administration Expense				
Experimental Expense				
Total				
Net Operating				
Nonoperating Incomes				
Nonoperating Expenses				
Net Nonoperating				
Net Profit Before Income Taxes				
Federal Normal Income Tax				
Federal Capital Excess Profits Tax				
Federal Excess Profits Taxes				
Total				
Net to Surplus				

Profit and Loss Detailed Statements

Product Classes	Net Sales Month	Net Sales Year to Date	Cost of Sales Month	Cost of Sales Year to Date	Cost to Sales Ratio Month	Cost to Sales Ratio Year to Date
Product A						
B						
C						
D						
etc.						

Underabsorbed and Overabsorbed Burden	This Year Month	This Year Year to Date	Last Year Month	Last Year Year to Date
Factory Departments A				
B				
C				
D				
Design				
Field Construction				
Standard Cost Variation (if any)				
Totals				

	This Year Month	This Year Year to Date	Last Year Month	Last Year Year to Date
SAMPLE FACTORY DEPARTMENT				
321 Indirect Labor				
322 Payroll Taxes and Insurance				
323 Tools and Production Supplies				
324 Repairs to Equipment				
325 Power Gas and Water				
326 Spoilage				
329 Trucking				
331 Depreciation, Insurance, Taxes, Rent				
332 Miscellaneous Department Expense				
TOTAL EXPENSE				
352 Expense Absorbed				
Underabsorbed Overhead (Over-red)				
SAMPLE OVERHEAD DEPARTMENT				
SELLING EXPENSE				
521 Payroll				
522 Payroll Taxes and Insurance				
523 Traveling and Entertainment				
524 Office, Supplies and Stationery				
525 Postage, Telephone, and Telegraph				
526 Advertising				
527 Miscellaneous Expense				
TOTAL SELLING				

On the operating statements of companies which use budgetary control, in addition to the comparisons with last year's figures or instead of this comparison, a comparison will be shown with budgeted or allowable amounts for the volume of business done. Although not covered in this discussion, control of expenses through variable budgets for varying levels of operation is considered indispensable by many well managed companies.

Balance Sheet

These balance sheet accounts will ordinarily be used by the heavy machine manufacturer:

Assets

Current

- Cash
- Notes Receivable
- Interest Receivable
- Accounts Receivable
- *Less* Bad Debt Reserve
- Inventories
  - Factory Materials
  - Factory Labor in Process
  - Factory Supplies
- Contracts in Process in Factory
- Construction in Process at Customer's Plants
- *Less* Billing on Incomplete Contracts
- (List in red if net is a credit)
- Investments (if marketable)

Deferred and Others

- Prepaid Insurance
- Prepaid Taxes
- Prepaid Rent
- Employee Expense Accounts

Fixed

- Land
- Buildings
- Machinery and Equipment
  - Factory
  - Field
  - Laboratory
- Automobile and Trucks
- Furniture

Total

- *Less* Depreciation Reserve
- Patents and Licenses
- Good Will
- Investments (if not currently marketable)

Total

Liabilities and Capital

Current

- Notes Payable
- Interest Payable
- Accounts Payable
- Accrued Payroll
- Insurance Payable
- Taxes Payable

Funded Debt

- Bonds Payable
- Long Term Notes Payable

Reserves

- Reserves for Product Servicing

Net Worth

- Capital Stock
- Surplus

Total

(Subsidiary schedules will be used showing in greater detail any balance sheet item on which more information is required.)

Tools

You will note that the various production departments' expense series include tool accounts and that there is none in the balance sheet list. On account of their short life and relatively small value, they are usually charged to expense when purchased and not carried as an asset in the accounts. Many of the tools, dies, jigs, templates, and patterns used in this business are specially designed and built for individual contracts and their use on another job is highly speculative. Their cost is charged direct to the cost of the particular contract for which they were purchased.

Bookkeeping Methods

The accounting system of the heavy machine manufacturer includes the usual records.

The General Ledger contains all asset, liability, and net worth accounts and either the controlling accounts for subsidiary expense ledgers or all of the expense accounts, depending upon the size of the company and the number of accounts used. It is often advantageous to be able to prepare complete summary balance sheets and profit and loss statements from this ledger by using control accounts for income and expense accounts, preparing supporting statements and schedules from subsidiary ledgers.

The Notes Receivable Ledger lists all notes receivable, showing effective dates, payers, amounts, interest rates, due dates, and a running record of interest accruals.

Accounts Receivable Ledgers records in detail transactions with customers, showing billings, payments, and accounts due. It may take the form of a machine posted ledger sheet, a hand-posted ledger sheet, or may consist of duplicate copies of customer billings in current and closed files properly annotated to show payments.

The Factory Inventory Records of standard materials generally consist of cards or sheets showing units received, disbursed, and balance on hand, the running record of values being shown only in the ledger account totals. In addition, where found desirable, the quantity record may show the units ordered, appropriated, and available for future orders.

Factory labor in process is supported by time tickets filed in the cost department by stock jobs in process.

Factory construction in process is supported by labor time tickets

and by material slips or bill of material lists showing labor and material appropriated for particular construction contracts.

Construction in Process at Customer's Plant Record is a subsidiary ledger or record showing, for each contract in process outside of the factory, the costs of shipments already made and those incurred at the contract location. It may be combined with the record of billings on incomplete contracts.

Plant and Equipment Record is a detailed record of all plant assets, with the possible exception of land and buildings, proving to the ledger account balances. It is useful for purposes of controlling depreciation, taxes, and insurance, as well as for accurate prorations to the various production departments for cost purposes.

Patents and licenses should also be supported by detailed records to enable accurate amortization charges to be made to expense over the life of the assets.

Notes Payable is a record similar to the notes receivable ledger already described.

Accounts Payable is a record of transactions with vendors and creditors, either in ledger form or by a voucher system cross-referenced to vendor's names. Cross reference is usually accomplished by filing alphabetically an extra copy of the face of the voucher if the vouchers are filed consecutively by numbers.

The Payroll Records should show a complete history of each employee, including application and approved placement authorization, rate and position changes, and removals. The current payroll records must supply adequate information for social security tax and information reports, workmen's compensation or employers' liability and public liability insurance, income tax and information reports, wage and hour law requirements, and any other reports required by government or management.

In heavy machine manufacturing where field construction is required, a special payroll problem exists. Where permanent crews do this work, the problem is reduced mainly to one of timekeeping, with payment following as soon as computations can be completed. Where, however, crews are hired at the job location and employment is largely nonrepetitive, the problem is also to obtain complete information at the time of employment sufficient to satisfy all taxing and reporting requirements. This plan can be accomplished by using weekly payroll receipts with full identification

of the employee and complete information as to hours and earnings. They may be of a type specially designed for rapid sorting and classifying by types of information for report purposes. If tabulating equipment is available, cards may be punched directly from information on weekly time tickets or time sheets. If keysort equipment is available, the keysort card can be the original weekly time ticket, or a duplicate copy of the original may be made when the original is written.

Subsidiary Expense Ledgers are kept when accounts are numerous. It is usually advisable to record the expense accounts in separate subsidiary ledgers controlled by one or more control accounts in the general ledger.

Miscellaneous Journals are special purpose journals used to record cash receipts and disbursements, invoice distribution, closeout of the various kinds of factory orders, closeout of cost of contracts in process to Cost of Sales, and closeout of contract billings to sales.

The General Journal is used to record journal entries not properly included in miscellaneous special purpose journals.

Statistical Records are used, in addition to the records tied in to the books of account, to record certain statistics records for sales, payroll, inventories, costs, taxes, insurance, plant purchases, and other items, as required by the management of the particular company.

ACCOUNTING FOR THE MINING, CONCENTRATING AND SMELTING INDUSTRY

By

Crawford C. Halsey *

Included in the mining, concentrating, and smelting industry are companies undertaking the mining and metallurgical treatment of the ores of iron, copper, silver, gold, zinc, lead, and many other metals. Most of the principal problems arising in this industry would occur in a company which mines, concentrates, and smelts a copper ore containing copper, silver, and gold, and the following comments are, in general, limited to the operations and accounting requirements of such a company. The small companies as a rule do not own and operate smelters, but either sell their ores and concentrates to a custom smelter or have them treated on toll. The accounts for such companies would differ somewhat from the accounts as described in this chapter, and where such differences occur they will be pointed out and explained. The accounting as described for the smelting operation applies, of course, only to a smelter operating in conjunction with a mine and not to a custom smelter.

Brief Description of Business

Operations ordinarily begin with the acquisition of the mining property in a more or less undeveloped state. If the mine is not yet in the production stage it is necessary to continue the exploration and development of the property so that the profitable extraction of the ore can begin. This work requires in the case of an underground mine, sinking shafts, running crosscuts and levels, driving winzes or raises between levels, etc.; or in the case of an ore body lying near the surface, stripping off and disposing of the overlying waste; and in both cases, the erection of a suitable metal-

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lurgical plant. All the expense of this preliminary work may be capitalized, but the expenditures for plant and equipment should be segregated from the expenditures for development operations as different methods of amortization are used.

The methods of mining and metallurgical treatment of ore vary greatly, the particular methods used depending largely on the percentage of the mineral content and its chemical composition. Various types of ores often occur in a single mine, it being quite common, for instance, for a mine to produce both a direct smelting ore and a concentrating ore.

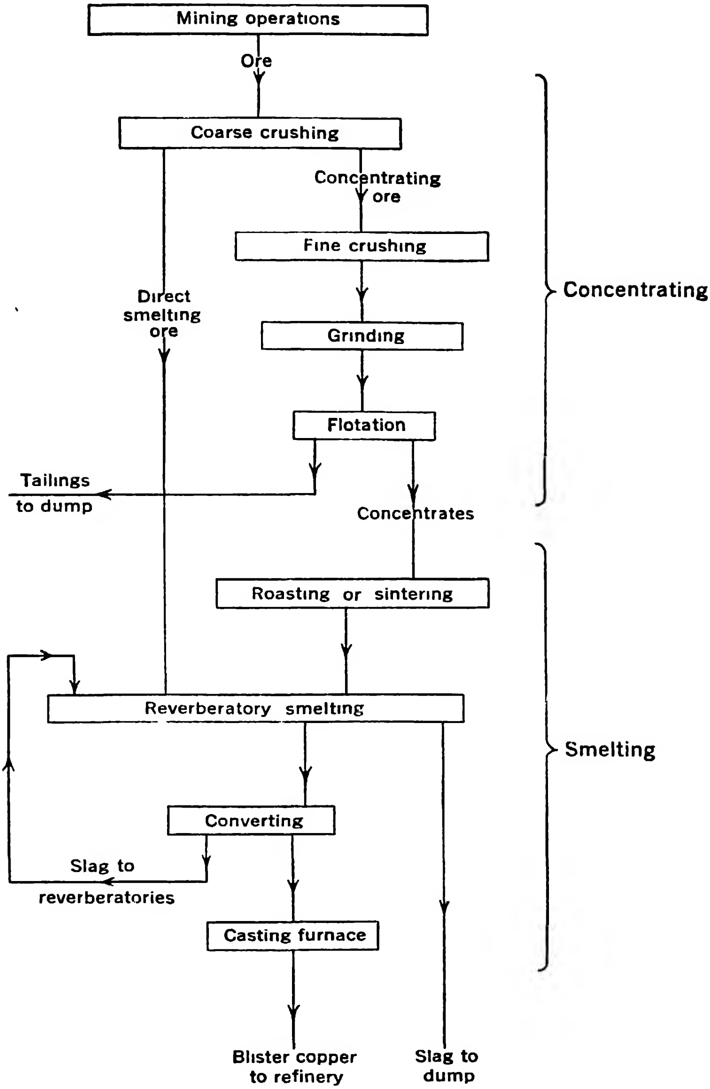
The product of the smelter is blister copper which contains, roughly, 99 per cent of copper, the remainder consisting of various metallic impurities and usually some silver and gold. The blister copper is sent to a refinery where copper that is practically pure is produced, generally by an electrolytic process, and the silver, gold, and other metals, if in sufficient quantity, recovered.

Blister copper is ordinarily treated by the refinery as "on toll," a toll being charged by the refinery for the work done in making electrolytic copper. The copper is returnable by the refinery to the producing company, that is, it is held by the refinery subject to the order of the producer. The precious metals recovered may also be returnable to the producer or they may be purchased by the refinery and the value thereof credited against the toll charged for the production of the refined copper. The returnable metals in the first case are then sold by the producer, and are delivered to the purchaser by the refinery as and when instructed by the producer.

The sequence of the various operations is shown graphically in the following chart of principal operations of a mining, concentrating, and smelting company. This chart shows only the major operations or groups of operations applicable to a particular type of nonferrous mining and smelting company. Under different conditions, the operations shown might be modified or expanded considerably.

Theories of Accounts

The accounting problems peculiar to the mining and smelting industry have to do with the valuation of property and the costs of operations. The financial accounting does not differ essentially from that of other industries.



In any company mining an ore containing more than one metal, it is first necessary to determine which is the principal or primary metal and which are secondary or by-product metals. Ordinarily this can be determined by the relative value of each metal, the metal having the greatest value being the principal metal and all others by-product metals. Sometimes the values of each of two or

more metals are so nearly equal that it would be illogical to select one as the most important product of the company. When there is one principal metal, the market values of the secondary metals should be credited to the total cost of production, the net cost resulting being the cost of producing the primary metal. If there are two or more principal metals, the total cost of production (less the value of by-product metals produced) may be divided between the principal metals in proportion to their market values at the time of production. These are correct applications of the general principles of by-product accounting.

The values of the mining properties, as carried in the accounts, are variously stated throughout the industry as being at the cash cost; at a value based on the par value of stock issued therefor; at a value based on the stated value of no par stock issued therefor; at a valuation made either by engineers or the Board of Directors usually as of the date of acquisition; at a valuation as of March 1, 1913, made by the United States Treasury Department for depletion purposes; at the same valuation as used by the predecessor company; at a nominal value; or at a value otherwise determined. The basis used would depend on the manner of acquisition, state laws, income tax laws, the degrees of optimism and the desires of corporate officials, and numerous other factors. Any figure that may be shown in the balance sheet, however, should not be represented as a present or a future value.

Methods of treating amortization of mine values, resulting in a deduction known as depletion, are not agreed upon by all accountants. Many mining companies do not make any depletion deduction in their accounts. This is done because it is believed that the impossibility of making even reasonably accurate estimates of the recoverable content of the ore body, the uncertainties as to the methods of mining, reduction, and refining to be used, and the corresponding costs thereof, the complete lack of knowledge as to the selling price of the various metals which will be recovered over the life of the mine, and other considerations make any figure that may be determined as the deduction for depletion so inaccurate as to be misleading if stated in the accounts of the company.

If depletion is recorded, the amount for any given period may be determined by applying a unit rate to the number of units of the principal metal extracted during that period. The simplest method

of calculating a unit rate of depletion is to divide the book value of the mining property by the estimated number of units of the principal metal in the ore body. This method is the one most frequently used in practice, but it should be remembered that it does not take into account or reflect in any way the variations in costs and selling prices of the metals recovered, the differences in grades and types of ores mined, and other basic factors. The amount of depletion should always be shown separately, and ordinarily as the last item in the Income account in order that the income before depletion can be readily obtained. Whether or not depletion is shown in the accounts, the company's policy with respect thereto should be clearly stated.

Plant and equipment is ordinarily valued on the books at cash cost although other bases are sometimes used. If the plant and equipment has been used during development operations, a portion of the cost representing depreciation during this period may be charged to deferred development.

The amount of amortization of plant and equipment, known as depreciation, may be calculated by applying a unit rate to the units of primary metal extracted during the period. A unit rate may be determined by dividing the cost of the plant and equipment plus the cost of the estimated additions over the whole life of the mine, by the estimated units of the principal metal in the ore body. Such a rate must necessarily be based on the same estimates of ore content as those used for the calculation of a depletion rate. However, ordinarily the cost of the plant and equipment is exact, the estimated useful life is reasonably accurate, and the plant and equipment must be replaced periodically (at which time adjustments may be made). These conditions avoid the probability of any material inaccuracy, particularly where the life of the plant is substantially less than that of the mine. If it is impracticable to estimate future additions, the quantity of metal to be recovered by use of the present equipment may be estimated and divided into the cost of the present equipment in order to obtain a unit rate. Other methods of calculating depreciation are sometimes used but do not, in general, produce as good results as the unit method described.

Expenditures for exploration and development prior to the beginning of the operating period may be capitalized but the gross amount thereof should be reduced by the value of any ore extracted

incidental to these development operations. The distinction between the development period and the operating period is, broadly, that during the development period the purpose of the operations is to discover the nature and extent of the ore body and to make it possible to extract profitably the ore blocked out. When the operations are directed principally to the extraction of ore already blocked out, the development stage has ended and the operating stage has begun. It will generally be true that some development work is going on in any operating mine and it is equally true that some ore extraction is generally taking place in any development operation. The distinction lies in the preponderance of the one operation over the other. Obviously, once the operating period has begun, charges to development cease except where an entirely new and distinct ore body is being developed. A situation sometimes arises where a substantial amount of mining expense, incurred during a period of operation, is for the benefit of future operations. Such expenses may be deferred and charged to subsequent operations but, in general, such charges should be scrutinized closely and avoided unless clearly called for by the nature of the work accomplished. Exploration and development expenses, incurred after the operating period starts, are ordinarily absorbed in the mining costs.

Deferred development charges are usually amortized by the deduction of amounts obtained by applying a unit rate to the units extracted. Such a unit rate may be determined by dividing the amount deferred by the estimated number of units of primary metal benefited by the development operations, or by arbitrarily stating that this development charge should be written off in a certain number of years during which an estimated number of units will be extracted. The charge is properly a part of the cost of extracting the ore.

Sales of the principal metal and the profit thereon are taken into income either at the time the sales contract is entered into (the sales basis), or at the time the material is actually delivered to the purchaser (the delivery basis). The sales basis is used in the nonferrous metal industry because sales contracts in this industry are firm future contracts and cancellations are virtually unknown, and also because it is often considered desirable to reflect in the accounts the known sales value of metals on hand.

It is customary for accounting purposes to consider the metal

contents of materials as being finished, that is, refined metals, at a time prior to their actual production as refined metals, such time usually being just after the last operation undertaken by the company itself. In the case of a nonferrous mining and smelting company this time would be when blister copper is produced, and in the case of a mining company producing ores and concentrates to be treated on toll by an outside smelter it would be when the smelter settlements are made. The estimated cost of all remaining operations necessary to produce the metals in the refined state should be accrued and included in production costs. It is at this time that the values of the secondary metals are determined and credited to the total cost of production (the net cost resulting being the cost of producing the primary metal), the charge being to the respective inventory accounts (or to the smelter if not on a returnable basis). As these secondary metals are sold the sales values are credited to the proper inventory accounts, any small differences between the sales values and the values originally set up being absorbed in current credits to operating costs.

Ordinarily the in-process inventories of a mining company are inconsiderable, although conditions sometimes require that substantial inventories, particularly of ores and concentrates, be maintained. In-process inventories, when reflected on the books, are carried at a cost determined by applying the cumulative unit cost to the quantity of the material on hand. The metallic content of such materials does not ordinarily affect the value set up for the material. However, if the total current sales value of the metallic content less the estimated additional costs necessary to produce these metals in the refined state is less than the cost value, the cost value may be reduced (in accordance with the theory of cost or market, whichever is lower) to this estimated market value.

Cost records are kept to facilitate the proper control of operations and to obtain correct bases for the valuation of inventories. Two unit costs are determined for each operation or department, one expressing the cost within the particular operation or department, the other expressing a cumulative cost which includes all prior costs. These are stated in terms of the unit of the material handled or produced by the particular operation or department, that is, for mining and concentrating, the ton of ore or concentrate; for smelting, the ton of blister copper produced; for refining, the

ton of electrolytic copper produced; and for the overall cost, the unit of weight of the principal metal produced (the pound of electrolytic copper).

Periodic comparisons of these unit costs provide a measure of the efficiency of the operations which can be of great value to the operating officials. Overall costs which include all expenses with the exception of Federal income taxes, interest, and depletion may be properly compared with selling prices in order to determine when sales can be profitably made. Departmental and overall costs which do not include general or selling expense, depreciation, or deferred development, may be compared as between periods to show the relative efficiency of operation.

Such overall costs may not be properly used for costing inventory as, for instance, the item of selling expense (if determinable) is not ordinarily considered as a cost of production; and there might be excellent reasons for omitting other items from inventory costs. Such items as general and administrative expense, and miscellaneous income and expense incurred in connection with the operations at the mine, depreciation of plant, and amortization of deferred development are properly included in costs and may be either shown as separate items or allocated to the various operations or departments. Some companies include depletion in cost, but because of the inaccuracies inherent therein, and the arbitrary nature of many of the basic factors used in the calculation of the charge, such a practice would ordinarily seem to be undesirable.

Costs are first charged in the cost ledger to the operations or departments. If the operation or department to which a charge is made is directly concerned in the production of material, the cost item is called a "direct cost." Direct costs include in the case of underground mining, for example, underground labor, hoisting labor and expense, surface labor directly connected with mining, and such supplies as explosives, timber, and concrete used underground, as well as other supplies consumed directly and immediately in the operation. If the operation or department is not directly concerned in the production of material, the cost item is termed a "redistributable cost." Redistributable costs include principally the expenses of the service departments, such as the blacksmith shop, carpenter shop, electrical shop, and machine shop, and warehouse expense, supervision, geological, engineering, and

general and administrative expenses. These redistributable costs are allocated to the various direct operations or departments by as logical a method as may be determined. This allocation may be arrived at by a careful classification of labor and supplies charged to the redistributable account, or it may be in proportion to labor hours or money in the direct departments, or by some other basis which may be partly logical and partly arbitrary.

Accounts Required

The principal general ledger accounts required by a mining and smelting company are as follows:

Balance sheet accounts:
- Cash in banks
- Petty cash
- Marketable securities
- Accounts receivable
- Reserve for bad debts
- Copper sold not delivered (also for by-product metals if required)
- Copper inventory unsold (also for by-product metals if required)
- Ores and concentrates on hand
- Supplies on hand
- Unexpired insurance
- Miscellaneous prepaid expenses
- Deferred development
- Mines and mining property
- Reserve for depletion (if shown)
- Buildings, machinery and equipment
- Reserve for depreciation
- Investments
- Notes payable
- Accounts payable
- Salaries and wages accrued
- Real estate taxes accrued
- Unemployment insurance taxes accrued
- F.O.A.B. taxes accrued
- Reserve for freight to refinery
- Reserve for refining
- Reserve for outgoing delivery charges
- Reserve for Federal capital stock taxes
- Reserve for income taxes
- Dividends payable
- Capital stock
- Surplus
- Profit and loss
- Dividends declared

Profit and loss accounts:
- Copper sales (net)
- Cost of copper sold
- Operating accounts:
  - Mining
  - Amortization of development
  - Concentrating
  - Transportation to smelter
  - Smelting
  - Depreciation
  - Blister freight
  - Refining
  - Redistributables (no balances, as charges are distributed to other operating accounts)
  - Change in in-process inventories
  - Silver and gold credits (value of production adjusted to sales prices)
  - Copper cost control
- Selling expense (if determinable)
- Interest earned
- Dividends received
- Interest paid
- Income taxes
- Depletion (if shown)

For a company not operating its own smelter but having its ores and concentrates treated on toll, slight modifications would be necessary. These accounts may be expanded to show any additional information that may be desired or to cover any other conditions that may be present.

The balances shown in the accounts Copper Sold Not Delivered and Copper Sales should be at the net sales value, that is, the gross sales value (calculated at the contract price) less delivery charges such as freight and insurance. All net sales values should be expressed in terms of the same point of delivery (F. O. B. New York or other refinery) so that the average net sales price will be truly comparable as between periods.

The entries to be made in these two accounts may be determined by either of two methods. The first method uses both a sales and a delivery register. The sales register shows gross sales values, estimated delivery charges in detail, and net sales values, entries being made for each sales contract at the time the contract is entered into. The total net sales value for the month is debited to Copper Sold Not Delivered and credited to Copper Sales. As each delivery is made there is entered in the delivery register the gross sales value (the amount billed the customer), the various delivery

charges, and the net sales value. The total gross sales value for the month is debited to Accounts Receivable, the total delivery charges credited to Accounts Payable or a reserve for outgoing delivery charges, and the total net sales value credited to Copper Sold Not Delivered. At this time Copper Sold Not Delivered and Copper Sales must be adjusted by the difference between estimated and actual delivery charges on deliveries made during the month. After these entries have been made at the end of any month, the balances in Copper Sales and Copper Sold Not Delivered will be at net sales prices and the balance of the latter should equal the total net sales value of all sales contracts on hand but not yet delivered.

The second method employs only a delivery register showing the same information as given in detail above. The entries to be made therefrom, however, differ in that the total net sales value is credited to copper sales. The balance of copper sold not delivered at the end of the previous period has remained unchanged and should now be adjusted to the total net sales value of all sales contracts on hand that have not yet been delivered. The resulting increase or decrease in Copper Sold Not Delivered is credited or debited respectively to Copper Sales. These entries result in exactly the same balances as reached under the first method. There is less control over deliveries and delivery charges under the second method but the bookkeeping is much simpler in that it is not necessary to make estimates of delivery charges each time a sales contract is entered into and then adjust such estimates to the actual charges when deliveries are made. The attached Chart of Books and Records and all discussion of accounting methods herein presupposes the use of the second method.

The balance of Copper Inventory Unsold at the end of any period is determined by first debiting to this account the net cost of production, the amount being the total charges and credits for the period to all of the operating accounts, a like amount being credited to Copper Cost Control. The cost pertaining to the copper sold (determined in the copper inventory control record subsequently described herein) is credited to Coppet Inventory Unsold and debited to Cost of Copper Sold. The balance of Copper Inventory Unsold after these two entries should be the same as the balance shown in the copper inventory control record.

Since the first entry mentioned in the preceding paragraph is the only entry to be made to Copper Cost Control, the balance of that account is a credit which exactly offsets the sum of the balances of all the operating accounts as listed above and therefore equals in amount the net cost of production.

The above discussion with regard to sales and metal inventories is applicable in the case of companies which have their product treated on toll. If a company sells its ores and concentrates to an outside smelter, the proceeds are credited to Sales at the date of settlement, and the only inventories to be reflected on the books would be ores and concentrates on hand, in transit to the smelter, and at the smelter but for which settlement has not yet been made.

The cost ledger accounts are subaccounts of such operating accounts as require analysis. Of the operating accounts listed above, these would be mining, concentrating, smelting, and redistributables, the subaccounts being essentially as follows:

Mining (underground)
- Exploration and development (current expenses only)
- Ore extraction
- Tramming
- Hoisting
- Drainage
- Ventilation
- Transportation to mill
- Sundry

Concentrating
- Coarse crushing
- Fine crushing
- Grinding and classification
- Flotation
- Handling concentrates
- Sundry

Smelting
- Crushing and sampling
- Roasting
- Reverberatory smelting
- Converting
- Sundry

Redistributables (no balances at end of any period)
- Blacksmith shop
- Carpenter shop
- Electrical shop
- Machine shop

Warehouse expense
Supervision
Geological expense
Engineering expense
General and administrative expense

These cost accounts may be expanded or eliminated to meet the particular operating conditions of the company, and individual accounts may be further subdivided if such information is desirable.

Complete records should be maintained in conjunction with the cost records, showing the quantities of all materials and the metal contents thereof from the extraction of ore to the production of electrolytic copper. These records should be complete for each operation and should show the quantities and contents of the materials entering into the operation, of the different materials produced by the operation, and of the materials transferred to the succeeding operation. These metal accounts are extremely important. From them may be prepared statements showing the flow of materials and metals through the various operations and departments, the operating losses, the percentages of recovery, etc. Accurate information of this character is essential to the proper control and conduct of operations by the management.

Operating Statements

The profit and loss statement can be readily prepared from the general ledger accounts as indicated on the following page:

If depletion is shown in the Income account, it should be shown separately as a deduction from Net Income (before depletion).

This statement may also show comparatively the results of operations of two or more periods.

Cost sheets may be prepared for each operating account and for each redistributable operation or department by analyzing the entries that have been made in the account. Such cost sheets would show a summarization of all expenditures, such as labor, supplies, power, and repairs, charged directly to the account, and the portion of each of the various redistributable expenses allocated to the operation. Such statements may include the quantities of materials handled and produced, the unit rates, and any other pertinent operating information. Other sheets may show a comparison of the results of the current period with the results of prior periods.

Sales of copper		$...............
Cost of sales:		
Mining	$...............	
Amortization of development	....	
Concentrating	....	
Freight to smelter	....	
Smelting	....	
Depreciation	....	
Freight to refinery	....	
Refining	....	
Change in in-process inventories	....	
	....	
Less value of silver and gold produced	....	
Cost of copper produced	....	
Add unsold copper inventory at beginning	....	
	....	
Deduct unsold copper inventory at end	....	....
		....
Selling expense (if shown separately)		....
Operating profit		....
Interest and dividends received		....
		....
Interest paid		....
		....
Provision for Federal and state income taxes		....
Net Income (before depletion) of the year		$...............

Balance Sheet

The balance sheet can also be prepared directly from the general ledger accounts, the headings being as follows:

Assets

Current Assets:			
Cash		$........	
Marketable securities (at market quotations $......)		....	
Accounts and notes receivable	$........		
Less reserve for bad debts	....	....	
Copper sold not yet delivered, at net sales prices		....	
Unsold copper inventory, at cost		....	
Ores and concentrates on hand		....	
Supplies on hand		....	
Deferred Charges:			
Deferred development		....	
Unexpired insurance and miscellaneous prepaid expenses		....	....

Fixed Assets:			
Mines and mining property	....		
Less reserve for depletion (if recorded)	....	....	
Buildings, machinery and equipment	....		
Less reserve for depreciation	....	....	
Investments in sundry companies		....	....
			$........

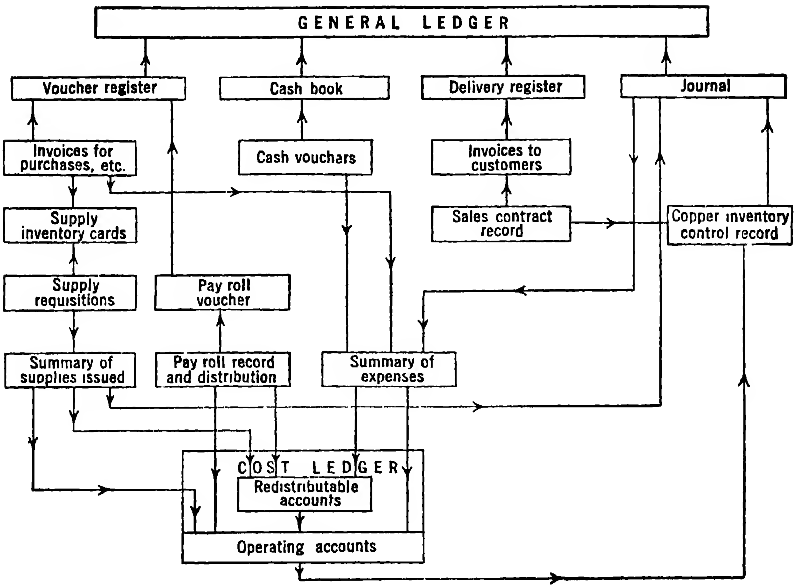
Liabilities, Capital Stock and Surplus

Current Liabilities:			
Notes payable		$........	
Accounts and wages payable and miscellaneous accrued expenses		....	
Taxes accrued		....	
Dividend payable		....	....
Capital Stock and Surplus:			
Capital stock:			
Authorized ...... shares of $...... par value each			
Issued and outstanding ...... shares		....	
Surplus:			
Balance December 31st, 1939	$........		
Net Income of the year 1940	....		
Deduct dividends declared during the year 1940	....	....	....
			$........

Apart from the question of valuation of mining properties which has already been discussed, the problems of mining and smelting accounting are essentially those of any process industry producing a principal product and by-products. The cost units are simple: a ton of ore, a ton of concentrate, a ton of waste, a pound of copper, an ounce of silver or gold, a pound of lead or zinc. To state the cost and the variations in cost of the different processes and operations and in the overall cost of producing the principal product, accurately and in as simple a manner as possible is one of the principal aims of mine and smelter accounting, and the foregoing is an attempt to indicate briefly the best current practices developed to obtain these results.

Bookkeeping Records

The attached chart indicates the principal records to be used in a typical mining and smelting operation and is followed by a brief description of the nature and use of each.



A brief description of some of these principal books and records follows:

The General Ledger includes all balance sheet and income accounts previously listed. Certain of these accounts serve as control accounts for such subsidiary ledgers or distribution books as may be maintained. Balance sheets and profit and loss statements are prepared directly from trial balances of this ledger.

The Accounts Receivable Ledger contains in detail the record of all transactions with each customer. In a mining and smelting company it is usually unnecessary to use this subsidiary record, as the transactions are few in number and in large amounts, and separate payments are usually received for each individual invoice. Instead, a duplicate of the invoice itself may be kept in an "unpaid" file and when payment is received the invoice is marked "paid," and transferred to the regular files. The total of all unpaid invoices in the "unpaid" file (or the total of all open accounts in the subsidiary ledger) should equal the balance of the control account Accounts Receivable in the general ledger.

An Accounts Payable Ledger is not needed in a company operating under ordinary conditions and paying its bills promptly, as the voucher register may be so designed that payment of each invoice

may be noted therein. In such a case, a listing of the amounts of invoices entered in the voucher register but not yet marked "paid" at a particular date should agree with the balance of the Accounts Payable account in the general ledger.

The Voucher Register contains the usual listing of all invoices for purchases and expenses, and of the payroll vouchers. As explained above it may also be used in lieu of an accounts payable ledger by providing a space in which the date of payment may be indicated for each invoice.

The Delivery Register lists all invoices to customers and shows the gross amounts billed (calculated at the contract prices), delivery charges, and net values, totals only being posted to the proper accounts at the end of the month. The total of the gross amounts billed is debited to Accounts Receivable, the total of the delivery charges is credited to Accounts Payable or Reserve for Outgoing Delivery Charges, and the total of the net values is credited to Sales. The register should be so designed as to show not only that all delivery charges have been accrued, but also that they have been subsequently paid.

If the company does not own a smelter and sells its ores and concentrates to an outside smelter rather than having them treated on a returnable basis, a delivery register is not required. In such a case a monthly summarization of the smelter settlement sheets may be made and attached to a journal voucher, the entry being simply a debit to the smelter (an Account Receivable) and a credit to Sales of ores and concentrates.

Journal Vouchers in separate form are probably more satisfactory than a bound journal as complete information for each entry can be written thereon or attached thereto. These vouchers should be used to record all transactions not coming within the scope of another book of original entry. Each journal voucher should be posted separately.

A supply inventory card record should be maintained in order that the management may be assured a proper control of supplies. A separate card is kept for each supply item and will show quantities and values of purchases, requisitions, and balances on hand. The information as to purchases is entered directly from the invoices received and distributed in the voucher register to supplies. When a supply item is to be drawn out of stock, a properly author-

ized requisition is made out describing the item and stating the quantity taken, the value thereof, and the operation or department to be charged. A copy of this requisition is retained by the storekeeper to substantiate the entry on the card and another copy is sent to the accounting department. At the end of the month the accounting department prepares the summary of supplies issued by distributing these requisitions to the proper operating and subaccounts, the totals being posted to the cost ledger. A journal entry is also prepared from this summary crediting the supply inventory with the total value of supplies issued and charging the proper operating accounts.

Payroll Records conforming to the requirements of the social security tax laws should be maintained and may be so designed or supplemented that the proper distribution of labor to the various cost accounts may be easily obtained and posted in the cost ledger. From the totals of this record a payroll voucher is prepared and entered in the voucher register.

The Summary of Expenses is a detailed distribution of all entries to the various operating accounts in the voucher register, cash book, and journal with the exception of the payroll vouchers in the voucher register and the journal entry for supplies used. The summary may consist of a separate section for each operating account, the distributions within a section being made to the subaccounts of the particular operating account. This summary is prepared by the accounting department at the end of the month and the totals posted in the cost ledger. Among small companies when the transactions are not too numerous, this summary may be used as the cost ledger by including the distributions for labor and supplies used.

The Cost Ledger as has been previously explained, shows the division of the various operating accounts into their subaccounts. Each operating account may be in a separate section of the cost ledger, each of such sections being controlled by the Operating account in the general ledger. All postings in this ledger are made from the summary of supplies issued, the payroll record and distribution, and the summary of expenses, as explained above, and from cost ledger journal entries showing the distribution to the various operating accounts of the total charges to each redistributable ac-

count. The cost statements may be prepared directly from the information in the cost ledger and the summary of expenses.

The Sales Contract Record is a card record of contracts entered into for the sale of copper. A separate card should be used for each sales contract and would show the name of the customer, the quantity sold, the price, the place and the expected date of delivery, and any other pertinent information. Deliveries should be indicated on this record and any contracts which have not been completely delivered should be kept in an "undelivered" file. The total net sales value of such "undelivered" sales contracts at any date should equal the balance of Copper Sold Not Delivered in the general ledger. When delivery is completed and the customer billed, the sales contract should be filed in a completed file with the duplicate copy of the invoice.

The Copper Inventory Control Record, kept both in pounds and dollars, starts with the balances at the beginning of each month of the pounds and value of the unsold copper inventory. To these are added the total pounds of copper produced during the month and the net cost of production. From these totals are deducted the number of pounds of copper sold, as shown by a total of the sales contracts entered into during the month, and an amount representing the cost of such sales. This amount is calculated from the actual costs of production on some consistent basis, such as "first-in, first-out," "last-in, first-out," or other suitable method, and a journal voucher is prepared charging Cost of Sales and crediting Copper Inventory with this same amount. The remainder so obtained is the balance of Copper Inventory Unsold and should agree in amount with the balance of that account in the general ledger. Similar records should be maintained for all other metals that are refined on a returnable basis.

This record is not needed if the company does not have its products treated on a returnable basis but sells them directly to an outside smelter or refinery.

ACCOUNTING FOR MORTICIANS

By

J. Gordon Hill *

Brief Description of Business

The business of a mortician is organized for the purpose of rendering service and providing facilities on behalf of families of deceased persons. This service begins immediately after death and extends up to the time and place of final interment or cremation. It is generally recognized that the business of a mortician is quite distinct from that of maintaining a cemetery, or a columbarium, or operating a crematory. A part of the service of the mortician, however, consists of ascertaining the wishes of the family as to burial or cremation, and of cooperating in making suitable arrangements therefor.

More specifically, the functions of the mortician embrace the conveyance of the body from the home, or other place of decease, to the establishment of the mortician; the preparation or embalming of the body;[1] provision of appropriate rooms, known as slumber rooms, for viewing the body and reception of friends (unless such facilities are provided in the home or elsewhere); the conduct of the funeral service, either at the establishment of the mortician, at a home, church, or other desired location; the providing of professional pallbearers or arranging for honorary pallbearers, if requested; conveyance of the body with a cortege to or from the place of burial or cremation; and the conduct of the burial service at such location.

Incidental to these principal functions are the procuring of data for the certificate of death, to be executed by the attending physician, or coroner, and the securing of a permit by local authorities for removal or burial. These documents constitute the basis of official records, which are used for life insurance, for publication

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[1] If preferred, this attention may be given at the home, without removal of the body to the establishment of the mortician.

of statistics relating to deaths, and other purposes. Other functions are: arranging details of the funeral service as to a clergyman, music, memorial addresses or other desired features; receipt and arrangement of floral offerings; and reception and ushering of family and friends in attendance.

As a natural consequence of performing all of these functions, the charges made to patrons by a mortician fall into three distinct groups: (1) the sale of the casket and other similar articles supplied; (2) compensation for services rendered, and (3) reimbursement for cash outlay for service of others, such as newspaper notices, fees of clergymen, or soloist, charges for cremation, transportation charges, if the body is shipped to a distant community, and similar items. Such outlays are usually termed accommodation advances.

As a basis for making charges to patrons, there have been two general methods in use. One is to make a charge consisting of specific items for casket, other articles supplied and for various kinds of services rendered. The other method is of more recent origin and is now in satisfactory use by a majority of morticians. It consists of setting an all-inclusive price, covering a unit of service embracing every essential detail, such as the casket or other articles supplied and the usual services rendered by the mortician, including a hearse, flower car, or other conveyances required. The basis for setting such a *unit price* is primarily the direct cost of the casket or other articles supplied, with the addition of an amount representative of the value (based upon known costs) of the various kinds of services rendered. In actual practice the unit price is the one indicated to the representatives of the family at the time the type of casket is selected and other arrangements made for the service. The theory of this practice is that the style of the casket selected is generally indicative of a proper basis for the unit price charged.

In addition, there may be an extra charge for clothing or use of automobiles, aside from the regular complement included in the unit price. The total charge of the mortician would, of course, include the accommodation advances mentioned above.

Theory of Accounts

The accounts of a mortician may be kept in conformity with generally accepted principles of accounting. The financial state-

ments in the form presented hereinafter, which may be prepared from the accounts at regular intervals (preferably at the end of each month) exhibit the essential data of the business from the standpoint of financial results. There are, however, other data in which he has a further interest as reliable indices of the condition of the business.

It is generally recognized that there are only two principal factors that determine the soundness of a mortician's business. One is the number of services that he is called upon to handle, and the other is the average type of service selected, which determines the gross income. These factors, in a broad sense, are the foundation of his business, with regard to both physical equipment and personnel. While he cannot regulate the "flow" of services from day to day, he can plan his future by budgeting the expense of maintaining his establishment, upon a basis consistent with the gross income which he may reasonably expect.

Various methods have been recommended for use by morticians, having for their purpose the development of cost data as to the various types of services rendered, upon a time or a per case basis. While a study of such costs undoubtedly produces valuable results, it is questionable whether their value is sufficient to justify the effort of regularly maintaining detailed cost records. An alert management will keep itself well informed as to costs by such special studies as may be indicated to be desirable from a scrutiny of the regular financial statements of the business.

In any event the general accounts and routine methods may be so organized that the details of gross income, costs, and direct expenses, with resulting gross profit for various departments, are segregated as follows: (1) caskets (including casket materials), (2) embalming and personal service, (3) auto hearses, (4) flower cars, and (5) other cars or service.

If considered desirable and the size of the business warrants, the second item may be further segregated as to (a) embalming and care, (b) slumber room service, and (c) chapel room service.

As a practical matter, costs are segregated as to these departments with quite a satisfactory degree of accuracy. With respect to income, however, the segregation is somewhat artificial, since it is based upon an apportionment of unit prices to the various participating departments, which must be more or less arbitrary. Even

so, the departmentalization of income serves a practical purpose in that it may indicate some unprofitable activity. For example, the operation of auto hearses, flower cars, or other autos may be found unprofitable, and may be discontinued in favor of some outside agency which could be employed by the mortician without loss.

In addition to these, accounts are maintained for indirect or overhead expenses, and for income and expense designated as non-operating.

Accounts Required

In addition to the accounts usually required for the assets and liabilities comprising the balance sheet of a business, the mortician is concerned with the accounts embracing the income and expense of the business, grouped under the following general classifications:

Department Operations

For each of the departments operated, the gross profit is determined from (1) gross income which consists principally of an allocation of part of unit prices charged patrons; and (2) costs and direct expenses which are segregated as to each department into several general types.

General Expenses

These are applied as a deduction from gross profits of departments (as above) to determine the operating profit. They are segregated in the accounts as to specific character and are grouped under various functional headings, as follows:

1. Administrative—salaries and expenses incident to the management and general conduct of the business, and not directly concerned with cost of service to patrons
2. Office—salaries and expenses connected with maintenance of accounts, billing and collecting
3. Building—salaries, rent (unless property is owned), and other expense incident to provision and maintenance of property and building equipment

Other Income and Deductions

Sundry items not directly concerned with operations, when applied to operating profit, produce the net profit or loss of the business. Items of particular interest are those which in amount are based upon profits earned, such as employees' bonuses on a profit-sharing plan and Federal and state income taxes.

The general accounts used for the assets and liabilities do not differ greatly from those of the average business and correspond almost exactly to the items shown on the balance sheet presented hereinafter. Assets may be numbered from 1 to 50 and liabilities from 51 to 100.

The general accounts, maintained for income, costs, and expenses, embrace the following:

DEPARTMENT OPERATIONS

	Caskets	Embalming and Personal Service	Auto Hearses	Flower Autos	Other Autos
Gross Income	101–1	102–1	103–1	104–1	105–1
Salaries	101–2	102–2	103–2	104–2	105–2
Caskets	101–3				
Materials and Supplies	101–4	102–4			
Other Expense		102–5			
Depreciation of Equipment		102–6			
Auto Expense:					
Gas and Oil		102–7	103–7	104–7	105–7
Repairs and Expense		102–8	103–8	104–8	105–8
Depreciation		102–9	103–9	104–9	105–9

GENERAL EXPENSES

	Administrative	Office	Building
Advertising and Publicity	110–1		
Association Dues and Subscriptions	110–2		
Auto Expense—General:			
Gas and Oil	110–3		
Repairs and Expense	110–4		
Depreciation	110–5		
Bad Debts	110–6		
Collection Expense		120–7	
Depreciation	110–8	120–8	130–8
Donations	110–9		
Gas and Electricity			130–10
Insurance	110–11		130–11
Laundry			130–12
Legal and Accounting	110–13		
Maintenance and Repairs	110–14	120–14	130–14
Miscellaneous	110–15		
Office Expense		120–16	
Salaries	110–17	120–17	130–17
Stationey and Printing		120–18	
Taxes and Licenses	110–19		130–19
Telephone and Telegraph	110–20		
Water			130–21

Nonoperating Accounts

No.	140	Purchase Discounts
"	141	Interest Income
"	142	Miscellaneous Income
No.	150	Sales Discounts
"	151	Interest Expense
"	152	Service Allowance—Morticians
"	153	Service Allowance—Employees
No.	160	Employees' Bonuses
"	161	Federal Income Taxes
"	162	State Income Taxes

Operating Statements

Operating results are exhibited by a statement of profit and loss, to be prepared from the general accounts as explained heretofore, in the following form:

Statement of Profit and Loss
Period ended__________

	No. of Cases	Gross Income	Costs and Direct Expenses*	Gross Profit
Department Operations				
Caskets	x	x	x	x
Embalming and Personal Service	x	x	x	x
Auto Hearses		x	x	x
Flower Autos		x	x	x
Other Autos		x	x	x
Totals		x	x	x
Accommodation Advances		x		
Total Charges to Patrons		x		
General Expenses*				
Administrative			x	
Office			x	
Building			x	
Total				x
Operating Profit				x
Other Income				
Purchase Discounts			x	
Interest Income			x	
Miscellaneous Income			x	
Total				x
Total Before Deductions				x

* Details to be shown by supporting schedules.

Deductions		
Sales Discounts	x	
Interest Expense	x	
Service Allowances	x	
Total		x
Profit—		x
Before Bonuses and Income Taxes		
Deduct		
Employees' Bonuses	x	
Income Taxes	x	
Total		x
Net Profit		x

Inasmuch as the number of cases and the money value of unit prices have such an important bearing upon financial results, it is advisable to have a clear picture of operating results as related to various elements entering into the unit price. For such purpose, a supplementary statement can be prepared, from all of the income and expense accounts, or by a grouping of the accounting data shown by the statement of profit and loss, which exhibit the principal factors determining profit or loss, both as to total amounts and averages per case. The following is an illustration of such a statement:

	Total Amounts	Average per Case
Number of Cases (caskets)	353	
Total Unit Prices, as per Sales Record	$86,792.00	245.87
Direct Costs and Expenses which vary with the number of cases handled	25,450.00	72.10
(Accts. No. 101–3, 101–4, 102–4, 102–5, 110–6, 120–7, 140 (credit), 150, 152 and 153)		
Constant Expenses which are not appreciably affected by the number of cases handled	52,857.00	149.73
(All of the department cost and expense and general expense accounts, except those used above, plus Acct. No. 151)		
Total Costs and Expenses	78,307.00	221.83
Less Sundry Income	1,816.00	5.14
(Department Gross Income, less total Unit Prices, as above, plus Accts. No. 141 and 142)		
Net Costs and Expenses	76,491.00	216.69
Profit before deductions, based upon profits	10,301.00	29.18
Deductions	3,248.00	9.20
(Accts. No. 160, 161 and 162)		
Net Profit	7,053.00	19.98

In the foregoing illustration it is evident that the financial results are quite satisfactory. The net profit, after all charges, is 8.1 per cent of the total unit prices, and is a natural consequence of having handled a sufficient number of cases of a satisfactory average gross income. This indicates a satisfactory balance between the level at which the business is organized and the service which it has been called upon to render. Less satisfactory results might indicate a period below average experience, or, if persistent, a lack of adjustment of the organization of the business to its opportunities for service. Results even more satisfactory than those illustrated would indicate that both the number of cases and averages per case were unusually satisfactory as compared with average experience. A scrutiny of the ranges of unit prices for such a period would probably indicate that there was an unusual number of cases in which selection of style of casket and other arrangements by the families produced unit prices much above the average.

Such data as to unit prices also enables the mortician to determine the effect upon his business of any changes in costs and expenses. Examples of such changes are the recent incidence of payroll taxes for social security, effect of the wage and hours law where applicable, and increases in income tax rates.

Financial Statement

The financial statement of a mortician is exhibited as of a certain date by a balance sheet, to be prepared from the accounts, showing assets and liabilities in the following form:

Balance Sheet, as at ____________

Assets

Current Assets			
Cash		x	
Notes Receivable		x	
Amounts Receivable		x	
Amounts Due	x		
Less—Reserve for Bad Debts	x		
Net		x	
Inventories		x	
Total			x

Fixed Assets			
Land and Buildings	x		
Furniture and Equipment	x		
Automobiles	x		
Total Cost		x	
Less—Depreciation Reserves		x	
Net			x
Other Assets			
Investments (unlisted)		x	
Prepaid Expenses		x	
Goodwill		x	
Total			x
Total Assets			x
Liabilities and Capital			
Current Liabilities			
Notes Payable		x	
Accounts Payable		x	
Taxes Due and Accrued		x	
Total			x
Other Liabilities			
Deferred Debt		x	
Reserves (accrued taxes and expenses not due)		x	
Total			x
Capital and Surplus (a corporation)			
Capital Stock		x	
Surplus		x	
Total			x
Capital (an individual or partnership)			x
Total Liabilities and Capital			x

As to certain items in the foregoing balance sheet, further details may be exhibited by supporting schedules. The following require comment.

Inventories

Ordinarily these consist of caskets, casket materials and supplies, embalming supplies, and miscellaneous supplies.

Caskets are credited and account 101-3 is charged monthly, at cost, for those used on cases handled, upon the basis of the casket records, which are explained hereinafter. Casket materials and supplies are similarly handled as used. The other two items of

inventories may be charged as used, upon the basis of reports of actual use or upon the basis of averages per case in accordance with past experience.

In any event, the balances in the inventories accounts should be confirmed by physical inventories, or be adjusted thereto, at the end of the accounting year, or more frequently if practicable.

Control of inventories is no great problem for the mortician. A stock of caskets of sufficient variety is kept on hand in accordance with current demand; and, as selections are made in the display room, orders are placed in ample time for replacement. The chief problem is to avoid carrying too many high-priced caskets of a type not often selected.

Fixed Assets

It is desirable to maintain these accounts in detail both as to cost and depreciation reserves, with respect to various buildings, distinctive kinds of equipment and for each automobile in service. This procedure affords a check against inaccurate or excessive charges for depreciation, and is important in connection with income tax returns.

Bookkeeping Methods

The books of account follow the forms and methods which are generally accepted as proper for the average business, except as to certain details which are peculiar to the business of the mortician. They are briefly described as follows:

The General Ledger contains the essential accounting data of the business, so classified by the accounts that financial statements may be readily prepared therefrom, in the form already presented.

The Funeral Record consists of a number of individual records (the loose-leaf form is recommended) of all the cases handled. Each is numbered in order of date of service and contains much of the information shown by the official records in the form of the death certificate and permit for removal or burial. It also constitutes a record of the accounts with patrons, showing details of charges made and amounts received, corresponding to the usual form of a customer's account, and being the detail record of the Accounts Receivable account in the general ledger.

The Casket Record may be in the form of a bound book, in

which each line is used to enter in chronological order details as to each casket received, including purchase cost and delivery expense. There is also provision for entry of the date, name, and mortician's number (corresponding to that used in the funeral record) of the case for which each casket is used. All accounting entries in this record are controlled by an account in the general ledger termed Inventories—Caskets. At the end of each month the balance in the latter account may be confirmed by agreement with a list of the items in the casket record which are shown to be unused, and, of course, when a physical inventory of caskets is taken, it should be in agreement, or reconciled with the general ledger account as to money value, and with the casket record as to the number of caskets.

Ordinary sources of posting to the general ledger include the following:

A Cash Record is kept separately for each bank or office fund.

The Sales Record is used to set forth details of charges shown by the funeral record, with analysis as to departments participating in income, costs, sales taxes, and other pertinent data.

The Purchase Record is used for entry of approved purchase invoices, with distribution to appropriate accounts. Entries indicated as unpaid at the end of a month may be listed as proof of agreement with Accounts Payable account in the general ledger, or individual accounts with vendors may be kept in a subsidiary ledger.

The Payroll Records contain employees' earnings in detail as to time employed, rates, and amounts earned, with social security or other deductions. Distribution to expense accounts concerned may be made upon the basis of periodical time reports or upon the basis of standards determined from past experience with a degree of accuracy satisfactory for the particular business. In this connection, the maintenance of a diary, covering all movements of automotive vehicles and personnel, will be found helpful.

ACCOUNTING FOR MOTION PICTURE THEATRE CHAINS

By

S. D. Rickman *

Brief Description of Business

Motion picture theatres in the present day are divided into two distinct groups, (1) those theatres operated independently of the producing companies in small chains or singly, and (2) those operated by the large film companies or their subsidiaries, such as Warner Brothers, Paramount-Publix, R.K.O., and Loew's. The operators of large theatres as a whole, operated more efficiently than the small exhibitors, and generally present a higher grade of product to the public. The former train their own front house personnel and sometimes have a managers' school to train house managers before giving them full authority to operate a house on their own.

The theatre exhibitor's operations begin with the signing of contracts for pictures from the various film exchanges, the play dates to be set in as desired during the coming season. The film exchanges (the retail or marketing end of the producing companies) bill the various houses in their territory for pictures, every film producing company having at least one and sometimes two film exchanges in a state. The film prints are delivered by train or motor express. Play dates are sometimes set a good many weeks in advance on special pictures and on other pictures, only a few days in advance. Pictures are played either on a flat fee basis or on a guarantee and a percentage of the box office receipts, depending upon the class of the picture being run. Films are shipped to the exhibitor collect if his credit standing is good. If a picture is to be played on a percentage basis, the film exchange often employs a checker to check the ticket continuity at the box office, and to see

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that no dishonesty prevails on the part of the exhibitor, and also to see that the film exchange is paid its proper share at the close of the engagement. The basis for playing pictures on a percentage basis varies with the size of the house booking the picture and often runs from 20 per cent to $650.00 in receipts with a split of fifty-fifty over that picture, to a percentage of 30 per cent to $1000.00 with a split of fifty-fifty over that figure, the basis of all pictures having been stipulated in the film contract when closed between the exchange and the exhibitor. The film exchange corporations often stipulate in their contracts with the exhibitors that the admission fee per person shall not be less than a certain figure.

Theory of Accounts

One of the most important considerations in the operation of a chain of theatres or even an individual theatre, is that all business be kept strictly on a weekly basis, all items applying to the current week's operations being accrued and expenses applying to future week's operations being deferred.

In an adequate system, the operations of all theatres are well controlled. A weekly profit and loss statement for each theatre is made available to the management. Each quarter year consists of thirteen weeks and the periods within each quarter are divided into four weeks, five weeks, and four weeks respectively. Financial statements are, of course, made available at the close of each period.

A thorough system of internal check should be in force and all of the subsidiary records should tie in to the general control journal at any time the auditor wishes to take off a balance, whether at the end of a day's, week's or month's posting. If the chain is very large, the various records and ledgers may be kept in their several departments, such as films deferred and accrued department, accounts payable department, ticket continuity department, general accrual department, and profit or loss department.

The importance of keeping theatre accounting on a weekly basis is stressed for several reasons. Seldom are pictures run over a week at one engagement. Furthermore, films, as stated heretofore, as well as various types of advertising materials, are often paid for weeks in advance of the play date and it can readily be seen how the operating picture would be distorted unless films,

advertising materials, and other costs incurred in advance were deferred. It is also necessary that all leaseholds be amortized weekly. The cost of leased sound or talking equipment is also handled weekly and paid for in the same way. Rentals from concessions, such as candy counters, soft drink and popcorn stands, and subrents from stores or offices should be handled weekly even though payments are on a monthly basis, the correct procedure being to charge rentals weekly to Miscellaneous Current Accounts—Receivable and credit accounts 52 and 53. (See the classification below.)

Accounts Required

The following chart of accounts provides a clean-cut presentation of actual facts necessary to the intelligent and profitable operation of a small chain of theatres. The procedure in connection therewith also gives definite safeguards against the fraudulent handling of cash through automatic internal control and as hereinafter explained under "Information Received from Individual Theatres."

Account Classification

Chain of Motion Picture Theatres

Account No.	Account Name
1	Cash in Bank, General Fund
2	Cash in Banks, Individual Theatre Deposit Accounts
3	Theatre Imprest Cash Funds
4	Property Accounts (Leaseholds and Equipment)
5	Reserves for Depreciation
6	Film Rental Deferred and Accrued
7	Insurance Deferred and Accrued
8	Taxes Deferred and Accrued
9	Advertising Deferred and Accrued
10	Miscellaneous Deferred and Accrued
11	Miscellaneous Current Accounts Receivable
12	Miscellaneous Current Accounts Payable
13	Open Accounts (Holding Companies)
14	Accrued Rentals
15	Accrued Interest
16	Accrued Taxes
17	Reserve for Bad Debts
18	Reserve for Income Taxes
19	Capital Stock Account
20	Surplus
21	Profit or Loss

INCOME CONTROL

51 Admissions
52 Subrents
53 Advertising
54 Salvage of Accessories
55 Miscellaneous Income

EXPENSE CONTROL

61 Holding Company's Feature Film Rental
62 Holding Company's Short Film Rental
63 Other Feature Film Rental
64 Other Short Film Rental
65 Film Transportation
66 Sound Scores and Nonsynchronizing Records
67 Performers' Salaries and Booking Fees
68 Orchestra Salaries
69 House Salaries
70 Other Salaries
71 Publicity Newspaper
72 Publicity Accessories and Posters
73 Publicity Lobby and Miscellaneous
74 Legal and Auditing
75 Travelling
76 Telegraph and Telephone
77 Electricity
78 Light Bulbs
79 Heat and Water
80 Repair and Renewals
81 Supplies
82 Miscellaneous
83 Contributions
84 Rent
85 Insurance
86 Taxes
87 Depreciation
88 Sound Installation
89 Bad Debts
90 Interest
100 District Office Overhead

Cash is allowed to accumulate in the individual theatre deposit accounts and once each week a check is drawn on each of these accounts and deposited into the General Fund Bank account, from which all vouchers are drawn in payment of expenses.

Accounts 61 and 62 are used to record the cost of film used or pictures run which are the property of the film producing company owning stock in this particular operating company. For example, Paramount or Fox will own stock in a particular operating

company in order to secure priority rights in film distribution to that particular chain.

Account 66 represents the cost of prevues, and of records which are to be played on the sound equipment.

Operating Statement

The XYZ Theatre Operating Corporation
Statement of Operations—Virginia Theatre
26 Weeks Ended June 28th, 1941

Account Detail	Current Period 6-28-41	Per Cent to Income	26 weeks Year to Date	Per Cent to Income
Income				
Admissions				
Sub Rents				
Advertising				
Miscellaneous				
Total Income				
Direct Expenses				
Feature Film Rental				
Shorts Film Rental				
Sound Scores or Records				
House Salaries				
Publicity Newspaper				
Publicity Accessories and Posters				
Legal and Auditing				
Telegraph and Telephone				
Electricity				
Heat, Water and Air Conditioning Costs				
Repairs and Replacements				
Contributions				
Miscellaneous				
Total Direct Expenses				
Operating Profit or Loss				
Less Fixed Charges				
Rent				
Interest				
Taxes				
Insurance				
Bad Debts				
Depreciation				
Sound Installation Costs Amortized				
District Office Overhead				
Total Fixed Charges				
Net Profit or Loss				

It will be noted from the above that this statement represents only one theatre's operations. It is the general practice to furnish the managers of each house with a copy of this report and to compile in the district office a consolidated profit and loss statement on all theatres. The District Office Overhead account, which is the costs of maintaining this office, is eliminated by distributing it to the various theatres.

Balance Sheet

The following balance sheet is illustrative of the type generally used or compiled by a small chain theatre operation:

The XYZ Theatre Operating Corporation

Balance Sheet
June 28, 1941

	Cost	Depreciation	Net Value
Assets			
Current			
Cash:			
In General Fund			
In Theatre Individual Accounts			
In Petty Funds at Theatres			
Miscellaneous Current Accounts Receivable			
Total Current Assets			
Investments			
Stocks Held in Various Film Producing Companies			
Fixed Assets	Cost	Depreciation	Net Value
Furniture and Fixtures			
Sound Installation			
Air Conditioning System			
Leaseholds			
Total Fixed Assets (Net)			
Deferred Expenses			
Films			
Advertising			
Insurance			
Interest			
Taxes			
Miscellaneous			
Total Deferred Expenses			
Total Assets			
Liabilities			
Current			
Notes Payable, One Year			
Vouchers Payable			
Miscellaneous Current Accounts Payable			

Total Current Liabilities
Funded Debt
Payments due subsequent years on sound installation and air conditioning system
Net Worth
Surplus 12/31/
Current Year's Income Control
Less Current Year's Expense Control
Total Net Worth

TOTAL LIABILITIES

BOOKKEEPING METHODS

Information Received from Individual Theatres is a daily report form prepared at each theatre and submitted to the district office. On this form spaces are provided for the subtraction of the opening ticket number from the closing number to show the total tickets sold. The number of tickets sold times the individual ticket price equals the amount for which the cashier is accountable. From the total value of all tickets used, the value of registered passes is deducted to obtain the net amount deposited in the bank. All tickets handled by the doorman should be torn in half and the half not given the patron should be destroyed in the ticket chopper. This procedure prevents collusion between the cashier and the doorman, preventing the selling of tickets twice.

The amount received at the depository bank of the individual theatre is vouched for by the bank teller and the daily box office report so stamped. Then, bearing the house manager's signature and the bank teller's stamp, the report is forwarded to the district office.

In the district office a recapitulated cash receipts and ticket continuity form is kept in the form of a ledger, posted from these box office reports. Cash receipts, as stated heretofore, are allowed to accumulate for one week, and a check is then drawn by the district office accountant on the individual banks transferring these funds to the general funds bank account.

Each theatre generally maintains an imprest cash fund, the disbursements from which are spread weekly on a petty cash distribution form for that purpose. This form, together with supporting vouchers, is mailed to the district office at the close of business each week for verification and payment.

All payrolls are usually cleared through the main office, all employees handling tickets or cash being bonded.

Account 6, Film Rental Deferred and Accrued, is maintained in a separate film accrual ledger supporting the general ledger account. This ledger is subclassified by theatres. The amounts of all film rentals paid is debited to this ledger. As the play dates and names of all productions are learned from the box office report and also from the booking department, the clerk handling this ledger accrues the cost of the film rental by journal voucher to the week by theatres to which the rental is applicable.

The accrual clerk or department handles all fixed charges, such as rent, leaseholds amortization, insurance, interest, and depreciation on sound installation. The debits are obtained from journal vouchers and general disbursement vouchers and accruals are prorated from the special ledger used for that purpose over the periods to which each charge is applicable.

The general control ledger is kept in detail in columnar style and controls the various ledger accounts of the business. The clerk keeping this ledger posts from the control column on all disbursements vouchers, journal vouchers, and cash book memorandums. As this clerk picks up his figures from the various records, he, in turn, breaks them down by theatre controls, both income and expense, on the flyleaf provided for that purpose. In this way he not only carries a control on his bank and other general ledger accounts but also controls the expense and income applicable to each theatre.

Theatre income and expense ledger receives its postings from the cash receipts and ticket continuity record and also from the other usual vouchers and original entry records.

The P. & L. clerk or department renders the weekly profit and loss statements as well as the monthly statements to the controller. Each theatre has a section in this ledger so that the operations of any particular theatre and the net profit or loss results for any given week or month can be readily analyzed.

It is possible for an auditor to stand in front of a theatre and clock an entire day's operations, or the admissions for only a specified time. Since the corresponding number of paid admissions appears in the ticket continuity record for that particular theatre on

the specified date, it can readily be seen that the manager could be checked for errors or embezzlement.

The petty cash vouchers that are attached to the theatre manager's imprest cash disbursement each week must be receipted for, and in this manner even the smallest disbursement may be traced.

All bank balances are reconciled to the book balances at the close of each month by the accountant in charge of cash and other control accounts. Each voucher drawn on the general fund must carry an accurate distribution both for control and subcontrol or a clerk may be thrown out of balance on a subsidiary record.

Sometimes in a theatre running road attractions and vaudeville an imprest fund is established for "——— Theatre Performer's Fund," from which actors are paid. Other imprest cash funds, including contingent and payroll funds, may be established.

As a rule, all theatre employees are required to be bonded. The various theatre cashiers carry overage and shortage reports, the overages being deposited as miscellaneous income and the shortages being made up through the petty cash, if reasonably small. Reasonable errors are allowed for making change during rush hours.

The company rules frequently require that only managers and assistant managers may know the safe combinations, and that whenever a theatre changes managers the safe combination be changed. The combination is recorded in the district office.

It will be seen therefore, that the district theatre office, although far removed from the individual theatre, is constantly maintaining full control over every element of the business.

ACCOUNTING FOR MUNICIPALITIES

By
H. H. PARRISH*

BRIEF DESCRIPTION OF BUSINESS

The more important differences, of primary interest to the accountant, between governmental activities and commercial enterprise arise from:

1. Extreme governmental emphasis on strict accountability and conformance to the letter of requirements established by custom or law.
2. The lack of the profit motive in governmental functions. (Rendering service at cost.)

Long before modern communication, transportation, and accounting methods were developed, it was necessary to plan activities in great detail and provide and set aside funds for each separate purpose, with strict but simple chronological periodic accounting for each. Separate records were maintained for each new activity; also, the term "fund" took on a larger meaning to include available cash plus other resources less liabilities and commitments or, net available resources. As newer and more efficient management and accounting control methods were developed, they were, in many instances, added to the old with the result that local requirements often demand inflexible and elaborate management and accounting procedures.

The demand for service at cost increased with the passing years, and a large part of the costs are not borne in proportion to benefits derived. The idea that governmental service must be rendered at cost is probably a contributing factor to the idea that no surpluses may accumulate, counterbalanced by the legal dictum that revenues of future years may not be hypothecated without the formal consent of the governed, as expressed by a majority vote at an election held for the purpose. In any case, theoretical generalities must give way to the actual conditions in each community.

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The usual procedures for providing service and financing the program follow this general pattern:

1. Determine the scope of the activities for the coming year (or other established period) and estimate the cost.
2. Estimate the probable revenues from permits, licenses, sales and income taxes, and other individual charges.
3. Provide for the excess of (a) the budget appropriations over (b) the preliminary Estimated Revenues, by assessing a general levy, usually on real and personal property, and a bond issue, if needed for unusually heavy expenditures or long-range programs.

The management of communities varies extremely, and in any degree, from being divided among many autonomous departments to being vested in a highly centralized common council, mayor, manager, or combination thereof. The relative merits of any given set of conditions, whether viewed from the standpoints of modern trends in political finance or flexible centralized management, may not be of practical interest to the accountant who is faced with the immediate necessity of arriving at a practical solution.

Theory of Accounts

The functions of acquisition, control, custody, care, and disbursement or disposal of resources of a municipality may be so decentralized into many divisions and separate funds that an entirely separate set of records is required for each fund, and a further complete segregation of budgetary and proprietary accounts. Proprietary accounts may be subdivided into separate Current and Capital records.

Funds established by custom or law usually refer to the receipt, custody, and disbursement of resources flowing through the Current Proprietary Accounts, since the principal interest centers around the ultimate proper receipt of cash, the expenditure of cash and accountability therefor. In purely functional accounting, there is no distinction between expenses and other expenditures. Exceptions to this generality occur in certain special activities such as self-supporting enterprises or the acquisition of real property in the corpus of a trust, the income from which is to be used for specific expense purposes. Ordinarily, a fund or class of funds is created for accounting convenience for the recording and control of Capital Assets (Fixed Assets). Investments in Fixed Assets, Deferred Charges, Work in Progress, etc., are usually fully reserved or

otherwise segregated from Surplus. The term "Surplus" (or any equivalent designation), unqualified by any adjectives or phrases, has a significance in municipal accounting usually restricted to the idea of the net resources available for the general purposes of the fund not encumbered by commitments or appropriated for the current year's activities. The term "Unappropriated Surplus" is generally used in order to express the idea more specifically. The governing principles are evolved from the facts that, when the budget is established and appropriation ordinances are passed, full authority is conferred on the operating divisions to commit the credit of the city for the expenditure purposes stated. The provision of cash and other resources to liquidate the obligations is a legislative act separate from the permission to spend. The finance offices usually must recognize all legal obligations. The plans for payment may involve a bond issue, temporary borrowing, registration of warrants, or other expediencies.

If completely separate budgetary records are required, the accounts needed, with varying exact nomenclature and methods, are substantially as follows:

Budget Requirements—Debited with appropriations; credited with accruals or cash receipts.

Available Resources, Other than Cash—Debited with accruals and prior year debit balances made available for current year; credited with collections.

Available Cash—Debited with prior balances made available and current collections; credited with expenditures when recorded as current liabilities.

Authorizations—Credited with prior unexpended balances continuing into the current year, prior authorizations encumbered and current appropriations; debited with encumbrances (such as purchase orders and contracts issued), and invoices or other media representing recording of definite liabilities if incurred without previous encumbrance.

Reserves (or Encumbrances)—Credited with the balances outstanding from the prior year (which usually must be accompanied by corresponding authorizations in order to meet legal requirements) and current purchase orders, contracts, etc., issued; debited with expenditures when recorded as liabilities. Any differences between the encumbrances and the corresponding liabilities require adjustments to Reserves and Authorizations.

The foregoing outline of types of accounts generally found in the Budgetary Ledger of "Dual Accounts" illustrates the principal differences in theory applicable to municipal accounting compared to accounting for commercial enterprise. Some form of budgetary accounting for municipalities is usually mandatory. Budgetary accounting in nongovernmental activities is usually voluntary. Strict

observance of municipal budgetary accounting usually requires that entries be made on the accrual basis, particularly as to expenditures. Difficulties arise when the proprietary accounts are kept on a cash basis, especially when comparisons of appropriations with actual expenditures are attempted.

Some of the differences in municipal accounting principles are:

1. A restricted concept of surplus.
2. A sharp segregation of the accounting by fiscal periods is usually mandatory unless funds or appropriations are clearly continuing without regard to lapse of time or until a specific program is completed.
3. The distinction between expenses and other expenditures is frequently incidental or ignored except as supplementary information or for budgetary control purposes.
4. Funds and record elements must be completely separable or entirely separate.

If the pertinent statutes, ordinances, and fixed precedent do not require complete separation of the records of each fund, we may, by the addition of two accounts (to a standard chart of general ledger accounts), "Appropriations" and "Estimated Revenues," compute all budgetary elements from the resulting "Unified Accounts," thus:

Estimated Revenues less Accruals = remaining Requirements
Appropriations less Expenditures and Reserves = remaining Authorizations
Cash less Current Liabilities = Available Cash
Receivables (and Negotiables, etc.) = Available Resources—Other

Accounts Required

In municipal accounting it is necessary to be able to classify:

Assets and liabilities by funds, fund groups, location, source, appropriation, function, and object.

Revenues by class, source fund, fund to which apportioned, etc.

Expenditures by fund, function, object or character, appropriation, and any other special budgetary classifications.

Any one entry may need several codings to fulfill the above requirements and be subject to as many different sortings with other similar entries. Therefore, the following lists of accounts and the codings are arranged for ready adaptation to tabulating or other mechanical systems and decimal expansion. Standardized nomenclature is well established. Descriptive titles are freely used in the account lists following.

Suggested fund groups and illustrative funds are:

Number	*Title*
1.0	Unapportioned Funds
1.1	General Property Taxes—Current Year
1.2	General Property Taxes—Prior Years (when taxes are not apportioned until collected)
2.0	General Funds
2.1	General Fund—Current Year
2.2	General Fund—Prior Years
3.0	Special Revenue Funds (Single purpose)
3.1	Park
3.2	Recreation
3.3	Library
3.4	School
4.0	Subventions and Grants Funds
4.1	State Gasoline Tax
4.2	Alcoholic Beverage Control
4.3	State Grants for Street Aid
5.0	Bond Redemption and Interest Funds
5.1	1921 Street Improvement Bonds
5.2	Sewer Bonds of 1935
5.6	Interest—1921 Street Improvement Bonds
5.7	Interest—Sewer Bonds of 1935
6.0	Capital and Special Assessment Funds
6.1	(Capital from) Sewer Bonds of 1935
6.6	Lighting District Special Assessments
6.9	Fund Source for Investment in Fixed Assets
6.92	From General Funds
6.93	From Special Revenue Funds
7.0	Trust and Agency Funds
7.3	Semi-Public Trusts
7.31	Police Retirement
7.5	Private Deposits
7.51	Contractors' Permit Surety
8.0	Revolving and Working Capital Funds
8.1	Street Opening Proceedings
8.3	Payroll Revolving
8.7	Central Stores
9.0	Public Service Enterprise Funds
9.1	City Gas and Electric
9.2	Harbor

Appropriations should be numbered in such a way that series may be easily combined into totals by operating divisions, funds, or management control groups. Each separate appropriation must be assigned a number. Illustrative assignments may be:

1 to 39—appropriations from the General Fund,
40 to 49—appropriations from Special Revenue Funds.

The advantages of carefully planned groups are apparent.

Standard classifications of revenues by class and expenditures by functions are well established.

Superior governmental units often require reports on either the cash or the accrual basis; therefore, it is advantageous to be able to convert the records quickly from one to the other by identifying receivables and payables by class and function or object, respectively.

The following are adaptations to fit a hypothetical city's needs.

REVENUES AND RECEIPTS BY CLASS

10		*Taxes*
	11	Current Year—General Property
	12	Current Year—Personal and Intangible
	13	Prior Years—General Property
	14	Prior Years—Personal and Intangible
	15	Penalties and Interest on Delinquencies
	16	Redemption Sales
	17	Franchises and Public Utilities
	18	Sales and Service
	19	Other
20		*Licenses and Permits*
	21	Street Use
	22	Business Licenses
	23	Other Licenses
	24	Construction Permits
	25	Equipment Permits
	26	Animal Licenses
	27	Marriage Licenses
	28	Burial Permits
	29	All Other
30		*Fines, Forfeitures, and Use of Property*
	31	Fines
	32	Forfeitures
	33	Penalties
	34	Proceeds from Seized Property
	35	Rent of Real Property
	36	Rent of Personal Property
	37	Concessions and Incidental Rents
	38	Royalties
	39	All Other
40		*Service Charges*
	41	General Government
	42	Public Safety
	43	Highways
	44	Sanitation and Waste
	45	Health, Hospitals, Charities and Corrections
	46	Schools, Libraries and Recreation
	47	Public Service Enterprise
	49	Miscellaneous Service Charges

50		*From Other Agencies*
	51	Proportionately Shared State Taxes—General Purposes
	52	Proportionately Shared State Taxes—Specific Purposes
	53	State Grants—Specific Source and General Purpose
	54	State Grants—Specific Source and Purpose
	55	State Grants—Unspecified Source—General Purpose
	56	State Grants—Unspecified Source—Specific Purpose
	57	Shared Taxes and Grants from Other Units
	58	Revenue from Private Sources
	59	All Other
60		*Special Assessments* (and Voluntary Contributions)
	61	To Aid Construction
70		*Public Service Enterprises*
	71	Markets and Warehouses
	72	Cemeteries and Crematories
	73	Ports, Harbors, Docks and Wharves
	74	Airports
	75	Light, Power, Gas and Water
	76	Other Utilities
	77	Ferries, Railways and Other Transit
	78	Public Housing
	79	Other
80		*Miscellaneous Revenues and Receipts*
	81	Compensation for Loss of Property
	82	Surpluses from Public Service Enterprises
	83	Surpluses from Discontinued Funds
	84	Interest on Deposits and Investments
	85	Sundry Interest
	86	Sales of Investments and Properties
	87	Sales from Stores
	88	Prior Year Revenues (except Taxes)
	89	All Other
90		*Debt, Transfers, and Agency*
	91	Borrowings—Short Term
	92	Borrowings—General Bonds
	93	Borrowings—Revenue Bonds
	94	Borrowings—Other Special Bonds
	95	Transfers from Other Funds
	96	Reimbursements
	97	Erroneous Receipts
	98	Refunds of Erroneous Payments
	99	Other Nonrevenue and Agency Receipts

Budget ordinances should pass appropriations classified by functional groupings for greater management flexibility. However, appropriations often list the approved proposed expenditures in character groups similar to Capital Outlay, Personal Service, Other Maintenance and Operation, Debt Service, etc., with added objec-

tive detail, whereas the final accounting classification may be by functions.

EXPENDITURES BY FUNCTIONS

10		*General Government*
	11	Legislative and Executive
	12	Judicial
	13	Civil
	14	Elections
	15	Finance
	16	Law, Recording and Reporting
	17	General Administrative and Personnel
	18	Planning and Research
	19	General Buildings, Promotion, and Other
20		*Public Safety*
	21	Police Administration
	22	General Police
	23	Traffic Control
	24	Auxiliary and Other Police
	25	Fire Administration
	26	General Fire
	27	Auxiliary and Other Fire
	28	Protective Inspection
	29	Other Protection
30		*Highways*
	31	Administration
	32	Permanent Roadways
	33	Semi-Permanent Roadways
	34	Unpaved Roadways
	35	Culverts and Pedestrian Ways
	36	Street Lighting
	37	Street Structures (except Surface)
	38	Tunnels and Waterways
	39	Other
40		*Sanitation and Waste Removal*
	41	Administration
	42	Sewers
	43	Sewage Disposal
	44	Drainage; Flood and Storm Control
	45	Street Cleaning
	46	Waste Collection
	47	Waste Disposal
	48	Air Contamination Control (Smoke, dust, etc.)
	49	Other
50		*Health, Hospitals, Charities, and Corrections*
	51	Health Supervision and Vital Statistics
	52	Health Inspection, Regulation and Control
	53	Outside Health Services

	54	Health Laboratories, Clinics and Hospitals
	55	Other Health
	56	General Charities
	57	Charities—Institutions and Other
	58	General Corrections
	59	Corrections—Institutions and Other
60		*Schools, Libraries, and Recreation*
	61	Schools—Administration or Aid
	62	Schools Operations
	63	Libraries—General
	64	Library Services
	65	Recreation—General and Cultural
	66	Organized Recreation Activities
	67	Parks
	68	Other Special Recreation Facilities
	69	Other
70		*Public Service Enterprises*
	71	Markets and Warehouses
	72	Cemeteries and Crematories
	73	Ports, Harbors, Docks, and Wharves
	74	Airports
	75	Light, Power, Gas, and Water
	76	Other Utilities
	77	Ferries, Railways, and Other Transit
	78	Public Housing
	79	Other
80		*Miscellaneous and Unallocated*
	81	Judgments and Losses
	82	Pensions and Rewards
	83	Workmen's Compensation
	84	Unemployment Compensation
	85	Insurance on Properties
	86	Liability, Custody, and Other Insurance
	87	State and Other Levies on City
	88	Contributions to Other Political Divisions
	89	Other Unallocated
90		*Debt, Transfers and Agency*
	91	Interest on Notes and Warrants
	92	Interest on General Bonds
	93	Interest on Revenue Bonds
	94	Interest on Other Special Bonds
	95	Payment of Notes
	96	Redemption of General Bonds
	97	Redemption of Revenue Bonds
	98	Redemption of Special Bonds
	99	Transfers and Agency Disbursements

Detail accounts should conform to standard practices within the specialized activity or industry, particularly schools, libraries and public service enterprises.

Expenditures by Object

10 *Personal Services*
- 11 Salaries—Regular
- 12 Salaries—Temporary
- 13 Wages—Regular
- 14 Wages—Temporary
- 15 Auditing, Accounting and Actuarial
- 16 Legal, Court and Elections
- 17 Dental, Medical and Surgical
- 18 Other Professional and Consultant
- 19 All Other

20 *Contractual Services*
- 21 Communication
- 22 Transportation
- 23 Utilities
- 24 Maintenance and Repairs—Real Property
- 25 Maintenance and Repairs—Equipment, etc.
- 26 Printing, Binding, Advertising, etc.
- 27 Cleaning, Laundry, Janitorial, etc.
- 28 Care and Shelter to Persons and Property
- 29 All Other

30 *Commodities (Stores, Materials, and Supplies)*
- 31 Administrative and Office
- 32 General Operating
- 33 Technical and Special
- 34 Electrical
- 35 Pipe, Plumbing, etc.
- 36 Hardware and Metals
- 37 Other Shop, Construction and Repair
- 38 Mobile Equipment
- 39 All Other

40 *Fixed Charges*
- 41 Rent (or Depreciation or Replacement)
- 42 Insurance
- 43 Taxes
- 44 Interest
- 45 Refunds, Awards and Indemnities
- 46 Pensions and Retirement Contributions
- 47 Grants and Subsidies
- 48 Subscriptions and Memberships
- 49 All Other

50 *Other Current Charges*
- 51 Maintenance and Repair—Real Property
- 52 Other Operating—Real Property
- 53 Maintenance and Repair—Equipment
- 54 Other Operating—Equipment
- 59 All Other

60 *Capital Outlays*
- 61 Land and Rights—Corporate Use

62 Land and Rights—Public Use
63 Buildings—Corporate Use
64 Buildings—Public Use
65 Other Structures and Improvements—Corporate Use
66 Other Structures and Improvements—Public Use
67 Equipment—Corporate Use
68 Equipment—Public Use
69 All Other

70 *Prior Years*
71 Personal Service
72 Contractual Service
73 Commodities
74 Fixed Charges
75 Other Charges
76 Capital Outlay
78 Debt, and Deferred
79 Non-City

80 *Debt Retirement and Deferred Charges*
81 Payments for Serial Bonds
82 Payments to Sinking Fund Bonds Funds
83 Investment Purchases
84 Purchases for Stores
85 Advances
86 Prepayals
87 Deposits
89 All Other

90 *Nonexpenditure Entries—Transfers and Adjustment Entries*
95 Transfers to Other Funds
96 Costs to Be Reimbursed
97 Refund of Erroneous Receipts
98 Erroneous Payments
99 Other Non-City and Agency Disbursements

General Ledger Control and Subsidiary Accounts

ASSETS

1 Cash
2 Accounts and Notes Receivable
3 Investments
4 Prepaid and Deferred Charges
5 Due from Other Funds
6 Other Assets
7 Future Taxes for Bonds and Interest
8 Trust Properties
9 Fixed Assets

LIABILITIES

11 Accounts, Judgments, and Accruals
12 Contracts and Serial Liabilities
13 Reserve for Encumbrances (and Projects)

14 Deferred Credits
15 Due to Other Funds
16 Other Reserves and Surplus
- 16.1 Reserve for Losses on Receivables
- 16.2 Reserve for Deferred Charges
- 16.3 Reserve for Working Capital, etc.
- 16.4 Reserve for Replacement or Depreciation
- 16.5 Reserve for (Other) Nonexpendable
- 16.6 Surplus—Accumulated—Prior Years
- 16.7 Surplus Adjustments
- 16.8 Appropriation Encumbrances (Debit)
- 16.9 Current Budgetary Net Credit or (Debit)

17 Bond Debt and Interest—Not Matured
18 Reserve for Properties Held in Trust
19 Investment in Fixed Assets

20 REQUIREMENTS

- 21–29 Estimated Revenues and Receipts (in class groups similar to Revenues)

30 AUTHORIZATIONS

- 31–39 Appropriations (Preferably in a functional reclassification of the appropriations, as passed in the budget ordinance, in order to obtain a comparison with expenditures classified functionally)

REVENUE SECTION

40 Revenues and Receipts
- 41 Taxes
- 42 Licenses and Permits
- 43 Fines, Forfeitures, and Use of Property
- 44 Service Charges
- 45 From Other Agencies
- 46 Special Assessments
- 47 Public Service Enterprise
- 48 Miscellaneous Revenues and Receipts
- 49 Debt, Transfers and Agency

50 Revenue, Transfers
- 51–59 Adjustments and Transfers of Revenues and Receipts (where it is necessary to maintain accounts as originally classified)

DISBURSEMENTS SECTION

60 Current Expenses
- 61 General Government
- 62 Public Safety
- 63 Highways
- 64 Sanitation and Waste Removal
- 65 Health, Hospitals, Charities and Corrections
- 66 Schools, Libraries and Recreation

67 Public Service Enterprise
68 Miscellaneous and Unallocated
69 Debt, Transfer and Agency
70 Capital Expenditures
71–79 In Groups similar to Current Expenses
80 Other Expenditures
81–89 May be used for prior years or any other segregation required by law. The three expenditure groups may be revised to reflect budgetary instead of functional groupings.
90 Expenditure Transfers
91–99 Adjustments and Transfers to Expenditure Accounts

Subsidiary records must be kept, controlling and showing details of all accounts by fund, or revenue source, appropriations, and funds as required.

The surplus section in the foregoing assumes that "Surplus" and "Unappropriated Surplus" are practically synonymous for governmental accounting purposes and that it is desirable to segregate surplus into component parts, such as:

16.6 The accumulated surplus of prior years as corrected, but prior to current transactions.
16.7 Adjustments thereto due to current transfers, transactions and decisions.
16.8 The net debit balance of encumbrances and special reserves forwarded, and those currently recorded, and not liquidated, canceled or rescinded.
16.9 The amount by which it is expected that surplus will be increased or decreased by current operations, as measured by the difference between Estimated Revenues and Appropriations. A debit balance must not be absorbed by future revenues.

Operating Statements

Operating statements, as the term is understood in average commercial usage, are not emphasized in municipal accounting except as required by aggressive and modern management. The statements, briefly described, are listed in approximate order of necessity by statute, ordinance, council resolution, and management directives.

Condition of Funds—usually consists of a listing of general ledger accounts, 1 to 19 inclusive, in customary balance sheet order, by funds, followed by an analysis of the surplus group. The value is enhanced and the significance is clarified by a supplementary statement similar to the following:

Cash			xx
Plus—Temporay Expendable Securities			xx
Cash Resources—(or equivalent)			xx
Less—Recorded Current Payables			xx
Available Surplus—Net Cash			xx
Plus—Receivables (Surplus—Other than Cash)		xx	
—*Less*—Interfund Payables	xx		
—Reserves for Losses	xx	xx	xx
Net Resources Available for Claims			xx
Less—Contracted Liabilities (If incomplete)		xx	
—Deferred Credits		xx	xx
Net Expendable Resources			xx
Less—Reserve for Encumbrances		xx	
—Reserved for Special Purposes		xx	xx
Net Resources—Unencumbered			xx
Less—Actual Revenue over Estimated Revenue		xx	
—Appropriations over Expenditures		xx	
Expected Surplus			$xx

Certain salient features of municipal accounting will be noted from the foregoing and published reference sources, such as:

1. The emphasis placed on availability for expenditure purposes.
2. "Other Assets" may be available or fully reserved, depending on their nature.
3. Deferred Charges and Fixed Assets are balance sheet record accounts only. The expenditures for acquisition are usually closed to Surplus at the end of each fiscal year.
4. Bonds issued are recorded by separate balance sheet entries, the proceeds from sale flow into appropriate surplus type of accounts by annual closing entries.
5. Trust assets may be of an expendable nature, but not a surplus for any city purpose.
6. Reserves for Depreciation are not used except as memorandum accounts, for comparison and cost recovery purposes.
7. Inventories of Materials and Supplies in an Operating Department would be fully reserved as Deferred Charges, whereas the same materials in Central Stores are equivalent to Available Resources—Other than Cash.

Condition of Appropriations statements tabulate amounts in the following columns:

Appropriations as Adjusted
Expenditures
Encumbrances
Other Reserves
Unencumbered Balance

in such order and budgetary classifications as circumstances require. Separate statements are compiled for each appropriation

and are controlled by general ledger account groups 30, 60, 70, 80, and 13. Transfers of budgetary allotments may be shown by transfers from an appropriation box in the heading to the appropriation column.

Revenues and Receipts statements compare Estimated Revenues (General Ledger Group 20) with Actual Revenues (Group 40) as Adjusted (Group 50). Adjustments for errors, additions, and subtractions should be made in the 20 or 40 groups. Statements by funds in condensed form are always necessary.

Appropriations and Expenditures statements are usually prepared in consolidated functional form. Additional or supplementary detail statements are compiled by funds, source, and administrative groups as may be required for special reporting purposes. The statements of Condition of Appropriations fulfill the usual legal requirements.

Cost and operating statements are compiled for service divisions, equipment pools for example, and enterprises. The details should closely agree with standard practices in similar private enterprises. Job or other special costs may be accumulated in the 80 group of functional expenditures and reallocated. The use of the 90 group in the Objective Code sometimes interferes with the necessity of maintaining the original object classification because of rigidity of budgetary classifications. Cost analyses for managerial purposes are usually accomplished by providing sufficient detail in the functional accounts so that units of work accomplished can be divided into functional costs detailed by location or other required subdivisions.

Bookkeeping Methods

Bookkeeping methods employed in municipalities must vary with the degree of centralization and flexibility of legislative, official, and managerial control. Revenue, expenditure and general journals are usually double entry and are similar to commercial records in substance. The names of the records of original entry are frequently adaptations of language in the mandatory acts requiring those records; for instance, the charter may state that "any claim on the City Treasury—" in which case the record of vendors' invoices will be termed "Claims Register," and the payable accounts will be known as "Claims Payable." The original record of claims

may be the minutes of the council, if every claim must be approved by that body.

Unless the financial functions of government are centralized, the general accounting will consist of the receiving, classifying, and recording of transactions recapitulated on daily reports from the various departmental offices. Since the original media will be widely scattered, proper controls are dependent upon the issuance and use of prenumbered financial forms.

The modern trend in financial control theory is toward centralization of Purchasing, Stores, Treasury, Cost Accounting, and General Accounting. Continuous pre-auditing and post-auditing should be entirely separate and accountable directly to the legislative branch or the citizens; under those conditions the bookkeeping methods most suitable would be very similar to the best commercial practices.

ACCOUNTING FOR NEWSPAPER AND MAGAZINE DISTRIBUTORS

By
JULIUS E. FLINK *

BRIEF DESCRIPTION OF BUSINESS

Almost all publishers of newspapers and periodicals require a highly organized plan for distributing their publications to the many points at which they are actually sold to readers. This plan involves the use of a great number of trucks and equipment and a highly experienced personnel functioning cooperatively to accomplish the tasks of distribution and its concomitant activity—promotion of circulation. Proper distribution is the concrete problem of the circulation department.

In some localities, such as metropolitan New York, this function is carried out by certain of the publishers themselves, but this plan is the exception rather than the rule. In most cases, the activities of distribution are the specialized function of individual and independent enterprises. The economies from which the publishers derive indirect benefit and which explain the existence of this business result mainly from the fact that the independent distributor handles a great variety of publications within a restricted territory, and his costs, therefore, are a burden to no single publication. It is apparent that were a publisher to undertake his own distribution within a similar territory, he would have to maintain a similar organization for only his own publications.

The independent distributor undertakes (1) to deliver all publications to individual retail dealers with the greatest possible promptness, (2) to maintain, collect, and take full risk of accounts with retail dealers, (3) to maintain an adequate supervision over the dealers' methods of merchandising and manner of display with the purpose of accomplishing a maximum sale and minimum re-

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turn, and (4) to assist and cooperate with the publisher in advertising and promotional schemes.

While in some instances the relationship between the distributor and the publisher is established by formal contract, many are established by oral understanding. The latter practice makes the relationship one of great flexibility; the controlling force is mutual interest. It explains the reason why distributors are often regarded as direct representatives of the publishers in the territories in which they operate.

The distributor's income is derived in the first instance from the difference between the purchase and sales prices of the publications. Other direct income is received from trucking charges, guarantees, and salary allowances which are paid by the publishers. In some instances, dealers pay a fixed weekly charge for delivery.

Large publishers demand cash deposits from distributors to secure the payment of balances, and, in turn, the distributor similarly holds cash deposits of dealers to secure payment of balances due.

The handling of newspapers for distribution is a matter of dispatching large quantities of merchandise with almost split-second promptness. It differs from the distribution of weekly or monthly periodicals in that the luxury of greater leisure cannot be tolerated. Newspaper bundles are made up from what is known as a "board" on which is recorded for each "route" the order of each newspaper for each dealer. The board, in turn, is used as a basis of billing the dealer. The total of all orders for each newspaper plus the leftover copies provides the basis for check with the publishers' invoices.

A record similar to the board, called "distribution sheet," provides the shipping room with the information required for making up bundles of magazines or other merchandise.

Some dealers are so situated that a railroad or other means of transportation may more conveniently and promptly bring them their orders. In such cases, their bundles are made up in the publisher's shipping room and shipped directly; the distributor merely charges and collects the account. Very often, in order to obtain prompt distribution of certain editions, some publishers will make up bundles in their own shipping rooms and dispatch them by railroad to a certain destination where the distributor's trucks are

waiting. Such bundles are loaded on the trucks and distributed without the necessity of handling in the distributor's delivery room.

Theory of Accounts

While the transactions common to the distributor do not necessarily proceed in a continuous flow, they do follow a general pattern of continuity and it is upon this basis that the theory underlying the accounting is predicated. The process may be briefly described by the following terms: (1) receiving, (2) shipping and transportation, (3) promotion, (4) returns, and (5) collection.

Income and cost accounts, therefore, are divided into two main categories: (1) accounts reflecting movements of merchandise, and (2) accounts reflecting charges and credits for services.

In the first group are the various purchase and sales accounts; in the second, various other income accounts, such as transportation and other allowances and direct expenses for receiving and shipping, maintaining delivery equipment, and pursuing such other promotional activity necessary to insure proper sale of publications.

All other expense is classed as general overhead.

The aim, therefore, is that information about the following shall be uniformly available from the accounts: (1) sales of publications as to class, and costs therefor, (2) sales of service as to class and direct costs therefor, and (3) general overhead of the business.

Accounts Required

Following the general theory of the accounting for income and costs in the business, the required accounts suggest themselves as follows:

Sales of Merchandise

The separate accounting for income according to classes is necessary in order to enable the management to observe with as complete uniformity as possible, the gross profit yielded by each class. Thus, sales and sales return accounts would be maintained for newspapers, magazines, and miscellaneous merchandise.

Cost of Sales of Merchandise

Purchase and purchase return accounts correspond in all particulars to the sales accounts maintained.

Direct Income Pertaining to Sales

All income earned as a result of services performed according to billing to dealers, or the terms of contract with publishers are accumulated in separate accounts according to class, such as transportation income, delivery charges, salary allowances and paper waste.

Direct Expenses Pertaining to Sales

These include expenses for maintaining delivery equipment and its depreciation; salaries and wages of receiving and shipping room help, of chauffeurs, of auto mechanics, of promotion men and collectors, hired trucking and shipping and wrapping expense.

General Overhead

The overhead of the business arises largely from maintenance of its office. Other expenses, however, not directly relating to the office are important in themselves. The groups of accounts required under general overhead may be summarized as: (1) rent, insurance, etc., and (2) general administrative.

The first group includes expenses applicable directly to handling of merchandise and operating trucks, as well as the office, such as insurance, rent, heat and light, social security taxes, ordinary repairs, and postage and mailing.

The general administrative group includes clerical and executive salaries, stationery and printing, travel and entertaining, professional services, telephone and telegraph, and depreciation of office furniture.

Account designations follow the general groupings outlined in the foregoing section:

Account Numbers	Group
1– 99	Balance Sheet Accounts
100–199	Sales and Sales Returns of Merchandise, and Purchases and Purchase Returns of Merchandise
200–299	Sales and Income from Services and Direct Costs pertaining to Services
300–399	General Overhead
400–499	Other Income and Deductions from Income

EXPENSE CLASSIFICATION

Merchandise Accounts

100 Sales—Newspapers
101 Sales Returns—Newspapers

102 Sales—Magazines
103 Sales Returns—Magazines
104 Sales—Miscellaneous Merchandise
105 Sales Returns—Miscellaneous Merchandise
106 Purchases—Newspapers
107 Purchase Returns—Newspapers
108 Purchases—Magazines
109 Purchase Returns—Magazines
110 Purchases—Miscellaneous Merchandise
111 Purchase Returns—Miscellaneous Merchandise

Income and Direct Costs Pertaining to Sales Income

200 Transportation Income
201 Salary Allowances
202 Delivery Charges
203 Sales of Paper Waste

Expenses

250 Salaries—Receiving and Shipping
251 Salaries—Chauffeurs
252 Salaries—Promotion and Collection
253 Auto Maintenance
254 Salaries—Mechanics
255 Depreciation—Delivery Equipment
256 Hired Trucking
257 Bill Posting and Promotional Material
258 Shipping Expenses
259 Advertising

General Overhead

300 Ordinary Repairs
301 Rent
302 Light, Heat and Power
303 Insurance—fire, compensation, etc.
304 Insurance—Property Damage
305 Insurance—Group
306 Social Security Taxes
307 Postage and Mailing
308 Depreciation of Improvements
309 Salaries—Executives
310 Salaries—Office Help
311 Stationery and Printing
312 General Office Expenses
313 Telephone and Telegraph
314 Travel and Entertaining
315 Professional Services
316 Depreciation of Office Furniture

Other Income and Deductions from Income

400 Interest on Deposits, etc.
401 Income from Bad Debts
402 Miscellaneous Income

403 Interest Expense
404 Bad Debts
405 Other Losses
406 Charitable Contributions

Operating Statements

Distributors are mainly interested in knowing the results of operations in the two separate categories as to gross profit yielded on sales, and the relationship of direct expenses pertaining to sales to direct income pertaining to sales.

Statement of Income and Expense

	Total	Newspapers	Magazines	Miscellaneous
Sales				
Sales Returns				
Net Sales				
Cost of Sales				
Gross Profit on Sales				
Direct Income Pertaining to Sales:				
Delivery Charges				
Transportation Income				
Salary Allowances				
Sales of Paper Waste				
Total Income				
Direct Expenses Pertaining to Sales:				
Salaries—Receiving and Shipping				
Salaries—Chauffeurs				
Salaries—Promotion and Collection				
Auto Maintenance and Repairs				
Depreciation—Delivery Equipment				
Hired Trucking				
Shipping Expenses				
Promotion Expense and Advertising				
Gross Profit on Operations				
General Overhead Expenses:				
Ordinary Repairs				
Rent				
Light, Heat, Power				
Insurance				
Property Damage				
Social Security Taxes				
Postage and Mailing				
Depreciation of Improvements				
Salaries—Executives				
Salaries—Office Help				
Stationery and Printing				
General Office Expense				
Telephone and Telegraph				
Travel and Entertaining				
Professional Services				

Depreciation of Office Furniture
Net Profit on Operations
Other Income:
Interest on Deposits
Income from Bad Debts
Miscellaneous Income
Other Deductions from Income:
Interest Expense
Bad Debts
Charitable Contributions
Other Losses
Net Profit for the Period

BALANCE SHEET

ASSETS

Current Assets
Cash in Bank and on Hand
Accounts Receivable
Returned Checks
Credits due from Publishers
Inventory of Merchandise
Loans Receivable
Deposits with Publishers
Total Current Assets
Fixed Assets (Depreciated Values)
Furniture and Fixtures
Autos and Trucks
Improvements
Deferred Charges
Unexpired Insurance
Prepaid Rent
Prepaid Auto Licenses
Prepaid Auto Expenses—Tires, Gas, Oil, etc.
Prepaid Shipping Expenses and Stationery

TOTAL ASSETS

LIABILITIES AND CAPITAL

Current Liabilities
Accounts Payable
Notes Payable
Dealers' Deposits
Accruals:
Taxes—Social Security
Taxes—Other
Interest
Insurance Premiums
Loans Payable
Total Current Liabilities
Capital Stock Issued
Surplus

TOTAL LIABILITIES AND CAPITAL

Valuations in the balance sheet are based on general principles and only differ in so far as the peculiarities and practices in the business demand.

Accounting Periods

Nearly all transactions in the distributor's business find a natural conclusion on Sundays. This applies to payrolls, billings to dealers, and a great number of billings from publishers. As a consequence, the practice of dividing the calendar year into thirteen four-week periods has grown up. Each period begins on a Monday and ends on a Sunday. This practice is not, however, exactly the same throughout the industry.

Accounts Receivable

Unlike the procedure in most other businesses, dealers' accounts are not charged with each delivery of merchandise; instead, once each week bills to dealers for merchandise which they received during the preceding week are posted. The bills are in this sense temporary accounts since they reflect changes in orders during the week, and attached thereto are the duplicate memoranda of magazine and other deliveries. When the bills are finally summarized, they provide totals of newspaper sales and returns, magazine sales and returns, and miscellaneous sales and returns. The bills are also entered in a sales and sales return journal. In some instances, the usual accounts receivable ledger is used for keeping dealers accounts. Among small distributing agencies, the combined sales book and ledger is frequently used, which, by reflecting the transactions of a dealer across the page on a single line, provides the totals necessary for general ledger postings.

Credits Due from Publishers

Since the business of newspaper and periodical distribution is one in which the stock in trade is in an almost uninterrupted day-to-day flow, it is to be expected that many adjustments are necessary in order to reflect correct profit or loss. Among such adjustments are those for returns in transit or not yet allowed by publishers, and income not yet received from publishers. While it is not incorrect to enter (at the time of shipment to the publisher) the charge for returned merchandise, as a practical matter the procedure of maintaining a memorandum ledger of returns and credits is much more

satisfactory. The reason for this is that returns on newspapers are generally on a limited basis and rejections constantly occur. In this way, only returns actually credited by a publisher are entered in the purchase return book, while rejected returns are indicated and closed out in the memorandum ledger, and current receivable returns are reflected as an asset.

Inventory of Merchandise

Inventory of merchandise includes not only merchandise that is held for resale to dealers, but also merchandise that is ready for reshipment to the publisher for credit. Trade practice with regard to merchandise to be returned, holds that the only item of value is the first page heading of newspapers and the first page of magazines. Hence, these first page strippings have the same value for return purposes as a whole newspaper or magazine.

Accounts Payable

In the billing of some newspapers and nearly all magazines, a number of days may elapse between the dates of receiving a shipment and billing by the publisher. In such cases, it is necessary to make adjustment at the closing date for merchandise not included in publisher's account which is in inventory or has been billed to dealers. Frequent items in transit necessitate adjustments for merchandise included in the publisher's bill which has not been received as of the date of closing.

Bookkeeping Methods

The General Ledger contains controlling accounts for all subsidiary ledgers, income and expense accounts, and balance sheet accounts. It is customary to enter inventories, credits due from publishers, and other such assets and liabilities once each year, namely, at the time of closing of books.

The Accounts Receivable Ledger contains all customers accounts, providing columns in which is entered the information summarized on weekly bills. In cases where the number of accounts are voluminous, the ledger may be broken up into sections according to routes or subagents, or other convenient classification.

The Accounts Payable Ledger contains all creditor accounts.

The Deposits Ledger is generally kept on card forms because of its relative inactivity. Each deposit received from the dealers is

recorded. When the distributor pays interest on deposits, columns may be provided for this purpose.

The Delivery Equipment Ledger contains accounts of costs and depreciation on each individual item of delivery equipment and (in a separate section) a record of mileage, maintenance expenses (classified according to gas, oil, and repairs), and total expense per mile.

Credits Due from Publishers contains accounts for returns and other charges to publishers. The book should be divided into four sections: (1) newspapers, (2) magazines, (3) transportation, and (4) other guarantees.

Each publisher is given an account in each section, in which columns are provided for charges, credits, rejections, and balance. Each column is subdivided into spaces headed number of copies, unit price, and amount.

The Magazine Record contains accounts for each magazine distributed. Columns for the designation of each issue reflect the number of copies ordered, the number returned, and the net sale. The lines of the page each designate an individual dealer. The record enables the distributor to observe the progress of circulation in localities and for each dealer(which information is of considerable value to the publisher), and permits quick adjustment of new orders to each dealer.

The original books of entry include a general journal, sales and sales returns, purchases and purchase returns, cash receipts and cash disbursements books, and petty cash journals.

Other records and forms include sales charge slips and credit memoranda, weekly sales invoices, newspaper boards, and magazine distribution sheets, memo of newspaper order change, auto mechanic's time sheets, mileage reports, and collector's reports.

ACCOUNTING FOR NEWSPAPERS

By

J. K. Lasser *

Brief Description of Business

A newspaper begins to function through the occurrence of an event of interest to the public. The news is picked up by sundry means. It may be reported by the newspaper's reporters or acquired from a news service bureau or from a foreign correspondent via radio, telephone, telegraph, or word of mouth. Details of the article are assembled by the editorial department where the facts are edited and prepared for print. Through various processes described later, the printed matter and illustrations are prepared for the presses where the completed newspaper is run off.

Notwithstanding the care and precision with which the printed newspaper is prepared, it would all be in vain if deliveries of the papers were not at all times dependably prompt. Today, when much of the news is broadcasted over the radio, "hot" news is apt to grow cold within a relatively short time. For this reason and because of competing newspapers, the mail and delivery departments of a newspaper publisher are of ranking importance.

Aside from the great achievement of providing up-to-the-minute printed news for an omnivorous reading public, newspapers are published for the purpose of making a profit.

A well balanced paper is one that makes a distinctive appeal to a large following of readers because of its ability to provide the latest and most authentic news and well written editorial content and simultaneously to stimulate an unfailing demand as a medium for advertising to the general public.

It is upon this premise that circulation is built. The more popular a newspaper, the larger its circulation and, in turn, the greater its fertility as an advertising medium. Strangely, it is upon the volume of advertising sales that a paper derives its major income. If

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it were not for this revenue, newspapers could not be sold at their prevailing prices without producing operating losses to the managements. For this purpose, most papers require a separate department for advertising, fully organized and equipped to procure sales and produce the printed space.

Theory of Accounts

Newspapers vary in content, size, distribution, and in the volume of circulation and advertising copy. No attempt is made here to cover the many ramifications of newspaper accounts or the procedures used by different publishers. The scope of this article is restricted to the fundamentals of newspaper accounting generally practiced by modern publishers.

Publishers are primarily concerned with two important factors, the volume of income and the cost of securing it. It follows that where the income is derived from more than one source, an analytical presentation of this income is essential and, accordingly, the expenses of operations must be identified by their respective component parts.

The principal sources of income are: (1) advertising (income from the sale of advertising space), (2) circulation (income from the sale of newspapers), (3) miscellaneous (sales of syndicated articles and news service), and (4) income derived from other sources.

To secure this income, the publisher incurs expenses which for the purpose of clarity, are condensed into the following principal groups: editorial (production costs for editorial content), advertising (costs of soliciting and producing advertisers' copy), mechanical (production costs for composing, stereotype, and press rooms), circulation (the cost of delivering and billing newspaper sales and the maintenance of circulation volume), and administrative (all those expenses not directly applicable to the above groups).

These divisions form the basis of the accounts.

Accounts Required

A brief description of the principal sources of income and operating expense is as follows:

Advertising Income is usually segregated into three distinct groups: (1) display, (2) classified, and (3) legal.

Display advertising is sold on the basis of predetermined rates. Through years of experience, all publishers of both newspapers and magazines have developed a method of pricing advertising space. Generally, it is sold under contract as an agreed number of insertions, at a definite rate per line, for a stated number of lines. Rates are divided into two or more classes. One distinction is between local and national advertising, while others are based on bulk space, locations, the number of insertions, and short rates for failure to use the space reserved in the contract.

Display advertising is generally sold through solicitation. The business is highly competitive and newspaper publishers are required to exert extensive sales and promotion efforts to procure contracts.

Classified advertising covers that form of advertisement generally run on a one-time insertion rate for a limited number of lines. Newspapers as a rule segregate in one section referred to as classified advertising, those advertisements covering employment, real estate, sundry chattel sales, schools, and sundry other items where the copy is comprised of terse descriptive matter of limited lineage.

The business is procured by several sales methods, although much of it is received from unsolicited sources. Through the efforts of a well organized advertising department, considerable classified space is sold by the use of mail, telephone, bill boards, carriers, branch offices, and agencies.

Another form of advertising sometimes given distinction is referred to as legal, which has to do with copy devoted to legal notices, claims, settlements, etc. Since the method of treating this form of advertising is generally similar to both display and classified, depending upon the circumstances, no further description will be required.

Circulation Income represents the sales of the copies of the newspapers. To acquire and maintain adequate volume of circulation sales, publishers must exert concerted promotional efforts. Extensive advertising and prize and feature campaigns are resorted to in order to stimulate public interest. Unfailing promptness in deliveries of the paper is expected.

Miscellaneous Income covers the sales of news service and syndicated features, such as comics, articles written by columnists, and religious, financial, political, and sundry editorial matter. Generally a separate department is maintained for this purpose and records

are kept of sales, most of which are under contract. Other income is derived from the sales of damaged newsprint, unused paper and ink, and sundry sources.

Operating Expenses

In order to describe the segregation of the operating expenses of newspaper publishing, a brief outline is given of the phases or processes through which the work, material, and supplies pass in order to produce the completed edition.

Editorial Department

Herein is compiled all the reading content of the paper, exclusive of advertising copy, received from all the available news sources. The news is edited and prepared for the composing room.

Advertising Expense

Included under this caption are the costs of soliciting advertising accounts, the preparation of copy (publication department), and the statistical records required for merchandising data and service.

Composing Room

All editorial and advertising copy is sent to the composing room where it is set up in type and the makeup of the paper is put together. After the pages are made up, the forms are locked and matrices made for the stereotyping department. Auxiliary departments are the photoengraving and color press electrotyping.

Stereotyping

Matrices received from the composing room are used to make metal plates for printing presses.

Press Room

The plates received from the stereotyping room are set in the presses into which paper is fed from rolls. The paper is printed as it passes between the plates and impression cylinders. After printing, the paper is mechanically cut and folded and is ready for delivery. The presses automatically tabulate the number of copies printed.

Circulation Expense

The circulation expense department is responsible for the delivery of the papers, promotion and maintenance of circulation sales, and records thereof.

Prompt deliveries of newspapers is of first importance to both a newspaper publisher and the readers. Failure to achieve constant punctuality in deliveries results in eventual loss of circulation sales. Publishers avail themselves of every possible form of transportation, and maintain extensive time schedules of various carriers to determine the time of departure and arrival at destination. In order to control and expedite the movement of papers for delivery on time schedules, the various departments that have to do with the publication of the editions must work in the closest coordination with the circulation department.

General and Administrative Expenses

This group of expenses generally includes those amounts which cannot be directly applied to the operating departments.

Code of Accounts

While the accounting systems of newspaper publishers may vary in their procedures, generally the character of the accounts is similar. A simple structure of the accounts would be arranged in coded designations as follows:

Numbers	To Represent
1 to 99	Balance sheet accounts
101 to 199	Income from advertising, circulation, syndicate and news service, radio, and other sundry income accounts
201 to 299	Editorial expenses
301 to 399	Advertising department expenses
401 to 499	Composing room expenses
501 to 599	Stereotyping Department Expenses
601 to 699	Press room expenses
701 to 799	General and administrative expenses

Income accounts are coded according to the capacity of the number of classifications required.

Income may be presented by the following:

101	Advertising	Display—Local	
102	"	"	National
103	"	Classified	
104	"	Legal	
105	Circulation	Charge	
106	"	Cash	
107	"	Subscriptions	
108	Syndicate	Income—Articles	
109	"	"	Serial

Code of Expense Accounts

	Editorial 200	Advertising A. Display B Classified 300	Composing Room A. Photoengraving B. Composing Room 400	Stereo-typing 500	Press Room A. Press Room B. Electrotyping C. Rotogravure 600	Circulation A. Mail Room B. Delivery Room C. Other 700	General and Administrative A. Financial B. General 800
1. Salaries and Wages	201	301	401	501	601	701	801
2. Editorial Features and Service	202						
3. Art Work	203	303	403				
4. Photos	204						
5. Legal	205						
6. Travel	206	306				706	806
7. Telephone and Telegraph	207	307	407	507	607	707	807
8. Stationery and Supplies	208	308	408	508	608	708	808
9. Postage	209	309				709	809
10. Newspapers and Periodicals	210	310	410			710	810
11. Copyrights	211						
12. Branch Office Expense	212	312				712	812
13. Repairs and Alterations	213	313	413	513	613	713	813
14. Solicitors' Expenses		314				714	
15. Advertising		315				715	815
16. Association Dues		316				716	816
17. Merchandising Bureau Expense		317					
18. Statistical Department Expense		318				718	
19. Metal			419	519			
20. Lubricants			420	520	620		
21. White Paper			421		621		
22. Kraft Paper			422	522		722	
23. Ink			423		623		
24. Gas			424	524	624		
25. Electricity			425	525	625		
26. Acids and Chemicals			426		626		825

27. Small Tools			427	527	627		
28. Cuts Purchased			428				
29. Blankets				529	629		
30. Matrices Purchased				530			
31. Press Repairs					631		
32. Electrotyping					632		
33. Depreciation—Furniture and Fixtures							833
34. Depreciation—Machinery			434	534	634	734	
35. Bad Debts							835
36. Promotion						736	
37. Payroll Taxes	237	337	437	537	637	737	837
38. State, County and City Taxes							838
39. Miscellaneous Taxes							839
40. Automobile Expense						740	
41. Wrappers, Paper and Twine						741	
42. Transportation Expense						742	
43. Insurance						743	843
44. Miscellaneous Expenses			444	544	644	744	844

110 Syndicate Income—Cosmics
111 " " Expenses
112 News Service—Income
113 " " Expense
114 Miscellaneous—Sale of Waste
115 " Damaged Newsprint
116 " Ink

The above accounts may be recorded in more detail as:

101 Advertising Display—Local—Black and White
102 " " " Gravure
103 " " " Magazine

Operating Statements

Statements of operations are of importance to newspaper publishers:

1. As a review of

a. Current income and expenses and net profit. For many management purposes, they are preferably presented in condensed form from which the important facts are readily discernible, supporting schedules supplementing the details of such income, operating expenses and other miscellaneous credits and charges. Ordinarily these statements give at least this information:

b. Current operations in comparison to prior periods

c. Current operations in comparison to budgetary estimates

d. The ratio of departmentalized expenses to income.

2. As a guide in

a. Planning future economies and promotional efforts

b. Estimating budgets for future periods

c. Creating statistical data

The form of a statement would follow the account classification which we have previously described. The following might be a brief summary.

Statement of Earnings and Expense

Income	
Advertising	
Display Local	$
Display National	
Classified	
Legal	
Miscellaneous	

Less: Agency Commissions	____	$
Circulation		
Miscellaneous Income		____
Total Income		$ ____
EXPENSES		
Editorial		$
Advertising		
Composing Room		
Stereotype		
Press Room		
Circulation		
General and Administrative		____
Total Expenses		$ ____
NET PROFIT BEFORE FEDERAL INCOME TAXES		$ ____

BALANCE SHEET

ASSETS

CURRENT ASSETS
- Cash
- Accounts Receivable
  - Less: Reserve for Bad Debts
  - Inventories

OTHER ASSETS
- Deposits
- Investments
- Advances to Employees, etc.
- Deferred Charges

FIXED ASSETS
- Building
  - Less: Reserve for Depreciation
- Machinery and Equipment
  - Less: Reserve for Depreciation
- Furniture and Fixtures
  - Less: Reserve for Depreciation

GOODWILL AND CIRCULATION

Total Assets

LIABILITIES AND CAPITAL

CURRENT LIABILITIES
- Notes Payable
- Accounts Payable
- Accrued Wages
- Accrued Interest
- Accrued Taxes

Deferred Revenue
Subscriptions Paid in Advance

Mortgage Payable

Capital and Surplus
Preferred Capital Stock
Common Capital Stock
Surplus

The foregoing balance sheet is presented in condensed form. Some of the accounts require comment since the details are distinctly characteristic of the newspaper business.

Accounts Receivable

The subsidiary accounts with debtors included under this caption represent amounts due for advertising, (display, classified, and legal), circulation, (city dealers, country dealers, and wholesalers), syndicate and news service, and miscellaneous.

Inventories

Newspaper publishers' inventories consist of white paper (newsprint), ink, metals, acids and chemicals, blankets and other composing room, stereotype, and press room supplies, mailing and delivery room supplies, job printing room supplies, and miscellaneous office supplies and stationery.

White paper inventories are recorded as follows: Generally, a newspaper publisher contracts with a paper mill for a supply to last a year or more. As the mill makes a shipment, an invoice is sent together with mill specification sheets, stating the number of rolls (by sizes), and the roll weights. When the paper is received at the newspaper plant, it is checked against the specification sheets. A record is kept by the newsprint department of paper removed to the press room. At the close of each week or period, a paper stock report is made up, showing the inventory at the beginning, the paper received and used, and the balance on hand at end.

Freight and cartage, warehouse, demurrage, and other charges incurred in transporting and handling paper shipments and stocks are added to mill costs. A report is made up for the accounting department of any damaged paper received and a cláim for credit made to the paper mill.

Other inventory stocks are kept by a perpetual inventory system.

Physical inventories are taken periodically and checked to the book records, adjustments being made for discrepancies.

Deposits

These cover deposits with post offices, air transportation companies, and various other organizations for the purpose of procuring the immediate use of their facilities without the delay of individual payments. The deposits are maintained at a fixed sum and daily, weekly, or monthly bills are rendered for the service used.

Deferred Charges

These will include amounts prepaid for (1) prepaid insurance premiums, (2) prepaid taxes and licenses, (3) editorial articles and photos purchased for future use, (4) prepaid subscriptions to periodicals and newspapers, and (5) other miscellaneous prepaid items.

Subscriptions Paid in Advance

The methods used to record amounts received from subscribers is not uniform among all newspaper publishers. As a rule, however, the amount of the subscription is either credited to current circulation income or treated as deferred revenue and distributed over the period for which the subscription runs.

When the subscriptions are treated as current income, the accounting process is simple, consisting of a credit to circulation income of those amounts recorded during the month in the cash receipts book (unbilled amounts) and circulation billings (accounts receivable).

When the income is treated as deferred revenue, it is necessary to establish records which will enable the accounting department to obtain a prorated total of all subscription income earned each month. Prorating deferred subscriptions in this manner is sometimes difficult when the rates of daily and Sunday editions are different.

Bookkeeping Methods

The accounting processes of newspaper publishers generally require the following books and records to which transactions are posted from books of original entry.

The General Ledger controls all other ledgers and records; contains the record of assets, liabilities, capital and surplus, and

income and expenses, the details of which are generally recorded in subsidiary ledgers.

Accounts Receivable Ledgers record in detail customers' accounts for advertising, circulation, and miscellaneous services and sales, such accounts requiring periodic statements.

Inventory Ledgers keep detailed perpetual inventory records of paper, ink, and supplies, regarding quantities, cost, location, and values.

Fixed Assets are sometimes detailed in records of machinery and equipment, furniture, fixtures, and delivery room equipment to serve for insurance purposes and to secure proper depreciation computations for current tax requirements.

Subsidiary Expense Ledgers record the expenses of the operating departments: editorial, advertising, circulation, composing room, photoengraving, electrotype, stereotype, press room, mailing, delivery, business office, general, and administrative.

Miscellaneous Records and Reports sometimes include the following:

1. Daily cash blotters for collections from advertising and circulation salesmen subscription accounts which are balanced and posted to the cash receipts record daily
2. Press room reports for paper and ink usage, waste paper, and production statistics
3. White paper consumption reports of paper usage as to paid circulation returns, service copies, unpaid copies, spoilage, waste, etc., for production costs
4. Circulation department reports of deliveries, returns, and cash collections
5. Advertisers lineage cards on which are recorded advertising space run

ACCOUNTING FOR NURSERYMEN AND FLORISTS

By

MARK MARCOSSON*

BRIEF DESCRIPTION OF BUSINESS

The term "nursery business" in general refers to the production or distribution of trees, shrubs, vines, and plants which are used for outdoor planting and includes such activities as the planting and care of landscaped areas.

Within this broad description, there are wide variations among individual nursery businesses. Such variations may be based on the products handled or grown, as, for example, nurserymen specializing in fruit seedlings, herbaceous perennials, flowers, or other particular products. Among flower growers, in particular, there is considerable specialization in specific flower groups. Another variation may be based on the type of operation from a horticultural point of view, as in the case of a grower who produces only seedlings for sale to other growers. Again, nurseries vary in the type of business operation, some being strictly retail, others wholesale only. Some sell exclusively by mail, others rely on direct sales to the consumer.

Inasmuch as the principles that apply to the general nursery business selling at retail also apply to the large majority of variations, this chapter will deal primarily with that type of operation.

The florist shop generally draws its principal income from the sale of flowers at retail, and its operation is therefore basically a simple merchandising operation, with a few features peculiar to the trade.

The fundamental operation in the nursery business is the planting and growth of plants. Ordinarily this involves a period of several years from the start of the process until the product is in a marketable condition, and it is this feature that distinguishes the horticultural operation from most farms and agricultural businesses.

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Not only is a long period of time required before the product reaches a marketable stage of development, with a consequent accumulation of costs for planting, soil preparation, and cultivation, but even after that stage is reached a considerable period may elapse until actual sale, during which additional labor and material costs are incurred.

Two other important operations may frequently be encountered in a typical general nursery business. One is the sale of landscaping services and landscape maintenance services. Another is the sale without services of materials other than plants, such as fertilizer, humus, topsoil, flagging, etc.

Theory of Accounts

The outstanding difficulty in accounting for the nursery business arises in connection with the inventory of growing stock.

The reason for the difficulty is that there are irreconcilable differences between inventory practices suitable for determining the profit or loss status of current operations from a business point of view, on the one hand, and those suitable for use in preparing credit or tax statements, on the other.

The principal difference of this type arises from the fact that growing stock is not required to be inventoried for tax purposes until it reaches a marketable stage of development, and this treatment is generally likewise preferable for credit purposes. However, the nurseryman frequently has a substantial investment in growing stock which has not reached the marketable stage, and, if such stock is not inventoried, or taken into the accounts in some fashion, the results of the operations will be distorted in any given period by the amount of the variation in such investment at the beginning and end of the period. While it would seem that this problem could be solved by setting up the cost of nonmarketable growing stock as a deferred item, this is not the general practice.

A related problem frequently encountered is that of deferred expenses. Certain operations, such as liming, may be required at intervals exceeding one year. Wherever such items are very substantial in amount, it is desirable that their cost be spread over a suitable period of time.

To operate a successful nursery business, it is imperative that the management have a reasonably accurate idea of the cost of the

principal products and services which it sells, and the accounts should be designed as specifically as possible to assist in doing so. Because the product is biological, subject to variations through climate, weather, pests, and similar factors, the task is most difficult and is not made easier by the highly individualistic type of ownership commonly encountered in the trade.

Nevertheless, so important is accurate cost finding that the accountant should make every effort to have the accounts give the maximum information under the circumstances encountered in the particular enterprise. Generally this can best be done by setting up records supplementing the general accounts, which will permit the allocation of various costs and expenses to suitable product divisions.

The most important item of these will generally be the labor cost, which is usually the largest cost element, particularly in landscaping operations.

Accounts Required

The accounts to be set up will vary according to the individual enterprise, and a careful study should be made by the accountant to see that the proper requirements are met. This is especially true of the income accounts, since it is desirable to break such accounts into classifications sufficiently refined to give the management instantly and currently a detailed analysis of the source of his income from sales. The following would be typical:

Income Accounts
- Sales—Nursery Stock
  - —Flowers
  - —Fertilizer and Sundry
- Income from Landscaping Contracts
- Income from Landscaping Maintenance Contracts

Cost and Expense Accounts
- Direct Labor—Nursery
  - —Landscaping
- Indirect Labor—Land Preparation
  - —Maintenance and Repairs
- Purchases
- Nursery Overhead
  - Fertilizer and Supplies
  - Fuel
  - Light and Power
  - Pesticides
  - Water
  - Repairs
  - Mortgage Interest
  - Real Estate Taxes
  - Depreciation of Equipment
  - Depreciation of Buildings
- Shipping Expenses
  - Labor
  - Packing Supplies
  - Freight and Express Out
  - Gas and Oil
  - Auto Repairs
  - Auto Insurance and Licenses
  - Depreciation of Trucks and Equipment
  - Sundry Shipping Expenses

Selling Expenses
  Salaries and Commissions
  Advertising
  Catalogs and Signs
  Sundry Selling Expenses
General and Administrative Expenses
  Salaries
  Stationery and Postage
  Telephone and Telegraph
  Insurance
  Legal and Auditing
  Taxes
  Interest Paid
  Bad Debts
  Royalties
  Traveling and Entertainment
  Sundry Administrative Expenses

The Bad Debt account will not be required where the accounts are kept on the cash basis. Where nursery land is rented, the items of Mortgage Interest and Real Estate Taxes will be replaced by a Rent Paid account. Similar variations will occur in individual cases. While only one account for taxes is shown in the foregoing chart, it is desirable to have a separate account for the Federal Insurance Contributions tax, applicable with limitations to horticultural employment.

A typical chart of accounts for a retail florist would consist of the following:

Income Accounts
  Sales—Flowers and Plants—Regular
    —Flowers and Plants—Telegraph
    —Novelties and Sundry
  Commission Income—F.T.D.A.
  Income from Plant Rentals

Cost and Expense Accounts
  Inventory—Novelties and Supplies
  Purchases—Flowers and Plants
    —Novelties and Sundry
  Selling Expenses
    Store Salaries and Commissions
    Advertising
    F.T.D.A. Commissions Paid
    Sundry Selling Expenses
  Delivery Expenses
    Salaries
    Postage, Express and Delivery
    Packing Supplies
    Sundry Delivery Expenses
    Automobile Expenses
    Depreciation of Automobiles
  Occupancy Expenses
    Rent
    Light and Power
    Insurance
    Depreciation of Furniture and Fixtures
  General and Administrative Expenses
    Salaries
    Telephone and Telegraph
    Stationery and Printing
    Taxes
    Legal and Auditing
    Sundry Administrative Expenses

Operating Statements

It is not practical for a nursery business to take a complete inventory oftener than once or, at the most, twice a year. Even in those larger nurseries where book inventories are maintained, the task of preparing an inventory and checking it against the actual stock is a major one.

It is, therefore, usually impossible for the nursery accountant to prepare complete interim operating reports, and such statements on a monthly or other interim basis are commonly prepared as break-even statements. A typical condensed statement would be along the following lines:

	Period Ended ____ Amount	%	Month of ____ Amount	%
Income Accounts				
Sales—Nursery Stock				
—Flowers				
—Fertilizer & Sundry				
Total Sales				
Income—Landscaping Dept.				
Total Income				
Cost Accounts				
Inventory—Beginning				
Direct Labor—Nursery				
—Landscaping				
Purchases				
Total Direct Cost				
Indirect Labor				
Nursery Overhead				
Total Cost Accounts (exclusive of ending inventory)				
Operating Expenses				
Shipping				
Selling				
General and Administrative				
Total Operating Expenses				
Total Cost and Expense Accounts				
Inventory Required to Show Neither Profit Nor Loss				

No comparisons are shown above, but where available it is desirable to insert them.

Wherever possible the classifications shown in the profit and loss statement should be supported by detailed analyses.

Care should be taken that the selling price of stock furnished under landscaping contracts is not included with the income from landscaping contracts. Such income belongs in the Nursery Stock Sales account.

The Purchase account should include all fertilizer and other materials that may be resold. Where such supplies are withdrawn for nursery use, they should be charged out to the Nursery Overhead account by requisition or similar device. Purchases which are

not designed to be resold may be charged directly to the overhead accounts.

Where the principal source of income is the growing of cut flowers, the production of annual seedlings, or similar operations, the inventory, other than that of supplies, will not be significant, and the statement form above may be regarded as a substantially complete one and shown as such.

In other cases the inventory will be of great importance in the complete operating statement. Its accuracy will depend in great part on the completeness and dependability of detailed labor reports prepared during the course of the fiscal period.

The operating statements of a flower shop are simple and require no extended treatment; they follow standard retail lines. The nursery statement form shown previously is suitable, with proper alteration in the cost and sales sections. It should be noted that outgoing telegraphic orders should not be included among the Sales, as a commission is received on these orders and no merchandise is actually shipped. The commission received is shown as an income item.

Inventories are commonly of no significance in florists' accounts. Cut flowers are either ignored or carried at a standard nominal amount. Where a line of gifts and novelties is carried, an inventory of such items will be required.

A typical nursery business Balance Sheet would be represented by the following:

NURSERY BALANCE SHEET

ASSETS

Current Assets
- Cash in Banks and on Hand
- Accounts Receivable
- Inventory

Deferred Charges
- Unexpired Insurance
- Deferred Nursery Costs
- Inventory of Supplies

Fixed Assets
- Land
- Buildings and Greenhouses
  - less Reserve for Depreciation
- Nursery Equipment
  - less Reserve for Depreciation
- Automobiles and Trucks
  - less Reserve for Depreciation

Furniture and Fixtures
less Reserve for Depreciation
Total Assets

LIABILITIES AND CAPITAL

Current Liabilities
Notes Payable—Trade
Notes Payable—Machinery and Equipment
Accounts Payable
Accrued Payroll
Accrued Expenses
Accrued Taxes

Fixed and Other Liabilities
Mortgages Payable
Notes Payable—Machinery and Equipment

Capital
Total Liabilities and Capital

A typical flower shop Balance Sheet would be as follows:

FLORIST BALANCE SHEET

ASSETS

Current Assets
Cash in Bank and on Hand
Accounts Receivable
Accounts Receivable—F.T.D.A.
Merchandise Inventory

Deferred Charges and Other Assets
Prepaid Insurance
Security Deposits

Fixed Assets
Furniture and Fixtures
less Reserve for Depreciation

Automobiles
less Reserve for Depreciation
Total Assets

LIABILITIES AND CAPITAL

Current Liabilities
Accounts Payable
Accounts Payable—F.T.D.A.
Accrued Payroll
Accrued Expenses
Accrued Taxes

Capital
Total Liabilities and Capital

The only accounts in the above Balance Sheet calling for particular comment are those having to do with the Florists' Telegraphic

Delivery Association (F.T.D.A.). This is the principal organization (there are others) of those which clear the delivery of flowers by telegraph. The florist who takes an order for transmission to a customer in another city receives the proceeds of sale from the customer and, after deducting his commission, remits the net proceeds to the Association. The florist who executes the order charges the Association with the selling price less the commission. At any given date, therefore, the florist will have a net balance due either from or to the Association, depending upon the respective amounts of outgoing and incoming transactions.

Bookkeeping Methods

Nursery businesses vary so greatly in the size and complexity of their operations that it is impossible to prescribe any system that will approximate fitting the needs of a majority of the firms in the trade. In a great many cases, perhaps in most, the business is operated by one or two owners. If the business is of sufficient size, a bookkeeper or cashier may be employed. Some nurseries, particularly in the wholesale trade, are large enough to have accounting staffs of some size. Among the smaller nurseries, however, it is quite common for practically all the records to be kept by the owner. Since he is usually a busy individual, in a trade calling for much attention to detail and a considerable amount of local traveling, it is highly important in such cases that a simple bookkeeping system adapted to individual requirements be used. The forms and procedures described herein should, therefore, be regarded primarily as suggestions, to be altered wherever desirable.

A system of recording sales in such a way that they may be analyzed in considerable detail by products sold is most desirable. The simplest way to secure this is by the use of numbered sales slips, required to be completed for every sale. A continuous autographic register form is well adapted to the trade. An original and two carbons should be provided, so that one copy may be given to the customer, one kept in numerical order as a posting copy, and one used for analysis purposes.

In some cases it is possible to use the sales slips to avoid the necessity of keeping a customers' ledger; where the volume of charge sales is not too great, copies of sales slips representing charge sales are kept in a separate binder and are marked distinctively when

payment is made. A list of the unmarked items is compared with the controlling Accounts Receivable general ledger account as a check on accuracy. Of course, in larger organizations, one of the standard accounts receivable systems will be used.

Sales analyses prepared from the sales slips or invoices should be in as much detail as the nursery organization will stand, because, without the basic information as to the types of product from which income is realized, it is impossible to utilize essential cost information.

In larger organizations a standard purchase journal and accounts payable system, either hand or machine posted, will be used to record purchases. In smaller organizations where sufficient bookkeeping personnel is not available, it is customary to charge purchases directly from the cash disbursements records and to rely on a careful check of unpaid purchase invoices at the end of any given period to set up the balance of purchases and accounts payable.

Since in smaller organizations, many of the sales are cash sales, and purchases and expenses are paid out of cash on hand, it is advisable to set up a daily cash and sales summary sheet which will show cash and charge sales, receipts from charge sales and cash paid out. A sample of such a daily cash and sales summary follows:

SALES AND CASH SUMMARY ________ 19

SALES SUMMARY

Sales—Cash
Sales—Charge
  Total Sales
    Less Discounts and Allowances
Net Sales

CASH SUMMARY

Cash Received
  Cash Sales
  Collections on Charge Sales
  Sundry Receipts
Total Cash Received
Cash Paid Out
  (Description of Items)
Total Cash Paid Out

CASH RECAPITULATION

Cash on Hand—Opening
Total Cash Received
    Total
Total Cash Paid Out
    Net Cash Available

Cash Deposited in Bank
Balance of Cash on Hand—Close

SALES ANALYSIS

Nursery Stock
  Shrubs
  Perennials
  Seedlings
  Flowers
  Other
Landscape Contracts
Landscape Maintenance Contracts
Supplies and Sundry
    Total Sales

The sales amounts on this summary are inserted from the sales slips or invoices, and the receipts from cash sales and accounts receivable collections, less cash paid out, will, of course, be compared with cash deposited in bank.

Of great importance is a record of the utilization of labor. A payroll record specially designed for the individual nursery business should be set up in such a manner that the allocation of labor costs may be checked against the total weekly payroll to insure that all labor costs have been allocated. Some labor costs will be allocated to specific landscaping contracts; others will be taken into consideration in valuing the inventory of growing stock; some will be chargeable to general nursery overhead.

Labor cost sheets, a sample of which follows, should therefore be kept in duplicate. The original, to be filed chronologically, will be used to tie in the total payroll cost for the period with the payroll book and cash disbursements. The carbon will be used to analyze the account and to allocate the charges.

All nurseries of substantial size and many smaller ones maintain cost records designed to show the actual average cost of production of all of the principal products. This is no easy task in a business in which so many operations are performed. It is capable of simplification to some extent by the fact that it is possible to group products by types which are similar in their handling and the length of time necessary to bring them to marketable condition.

A cost chart is usually, therefore, based on a lot of a single type of plant. These lots must be sufficiently large so that any averages arrived at will be representative. The lot is assigned a type and lot number and on its chart are recorded chronologically all of the items of direct cost which are expended upon it. These will in-

clude soil preparation, transplanting, weeding, watering, mulching, cultivating and similar items, and such materials besides the original cost of the stock as fertilizer and spraying materials.

Nursery overhead will also be charged to the particular lot at suitable intervals. As far as possible this should be done on a basis which reflects the actual degree of use of overhead items assign-

NURSERY LABOR REPORT

Date
Labor Report No.
Order No.

Description of Operation:

Employee	Hours	Rate	Total

Total Labor Cost

Equipment Used

Description	Hours

Supplies and Expenses

Description	Amount

Remarks and Summary:

able to the particular plantings. Equipment use, for example, may be determinable on a fairly accurate apportionment of actual time spent on the particular lot. Some costs may be allocable on the basis of acreage.

Substantially the same bookkeeping records are suitable for the florist, with the exception that there is usually no need for the elaborate cost records which are necessary in the nursery business, and ordinarily no detailed analysis of sales or purchases is required. A simple daily cash and sales summary is suitable for the average florist shop. Together with the checkbook or cash disbursement book, the purchase register, and payroll book, it supplies all the records necessary for an adequate bookkeeping system. In florist shops as in nurseries, trained bookkeeping personnel is often not available.

ACCOUNTING FOR THE OIL PRODUCING INDUSTRY

By

JOHN BURNIS ALLRED *

BRIEF DESCRIPTION OF BUSINESS

Oil production is a peculiar business. Unlike any other business, it is based on a decided uncertainty in that the product sought is unseen. Income is usually derived from sales of crude oil which must be produced by drilling to various depths underground. Frequently this drilling fails to encounter oil; if it does, the oil may not be present in paying quantities. Consequently the gamble or chance of loss is greater than that found in almost any other business.

The first operation of one entering the oil business is to obtain leases. These are usually sought in territory that has been passed upon favorably by competent geological authority. The cost of these leased rights varies, running from 25 cents an acre to thousands of dollars, depending on the preponderance of evidence as to the presence of oil and the quantity thereof.

Title to the land on which leases are taken must be perfect. Imperfect titles produce perfect setups for lawsuits, especially if oil in paying quantities is found.

Leases usually stipulate the landowner's retained royalty interest, and the conditions under which the lessee may retain such title as the lease is supposed to convey. The lease must be recorded in the county records where the land it covers is located in order to put the public on notice of such right. This right must be first, that is, the lessee would not have good title if another like grant had been placed on record before his.

Drilling may be done with the lessee's own equipment, or it may be done on contract with others for any part or all of it. Drilling

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rights are strictly controlled in most states by state authority, to prevent overcrowding of wells and for other good reasons. When drilling is done by contract, if it is a complete job, with casing and other equipment ready for pumping, it is called a "turnkey job." If the lessee drills his own well, he must furnish the equipment as needed. But regardless of how the well is made the physical equipment—casing, tubing, rods, and other equipment—should be capitalized separately from the intangible cost occasioned by the drilling of the well. This last is sometimes capitalized and sometimes charged to expense, depending upon the lessee's option as to which method he selects. If he elects to capitalize, he must do this on all subsequent operations. If he elects to go the expense route he, likewise, must continue so. This procedure is in line with present income tax regulations; generally, however, all turnkey jobs are capitalized.

Physical equipment is subject to depreciation. Leases are depleted in proportion to the actual production. When the drilling costs are not capitalized, only the bonus cost (the amount paid the landowner originally) plus the rental costs, if they are capitalized, may be depleted.

Rates for depreciation vary proportionately to the wear and tear occasioned by the use of the physical assets, and range from 3 to 30 per cent. Different locations, because of sand, dust, and atmospheric conditions, cause the rates to vary. Only experience in the fields can definitely determine proper rates.

Depletion is primarily based on capitalized cost prorated over the total estimated barrel production. Cost depletion is allowable for income tax even if it produces a net loss. However, two other methods are in use, and one or the other, depending upon the circumstances, is allowable in lieu of cost depletion, if advantageous to the producer, in computing income tax. These are the 27½ per cent of production method and the 50 per cent of net profit method. Of these two the method allowable is the one which produces the least deduction for income tax purposes.

Oil and gas are sold at the leases, the purchasing companies usually having gathering lines and pipe lines for the purpose in all important fields. The oil is graded according to specific gravity for purchasing purposes, and the amounts offered, known as posted prices, are generally uniform for each field depending upon such

gravity basis. The gas is usually sold to distributing companies as fuel. Certain types not suited for fuel purposes are sold to carbon black manufacturers for the production of carbon black.

Description of oil operations in general is not complete unless attention is given to the popular terms "oil payment" or "payment in oil." These terms have become necessary because of the tendency among oil traders to require the sellers of potential oil properties to assume a part of the risk in the undertakings. It is brought about by the agreement between buyers and sellers that the buyer takes the lease by payment (or not) of a part of the purchase price, agreeing to pay the seller out of the proceeds of oil production, or allowing the seller to retain a certain portion of the oil produced, until such time as he has received the contracted amount, after which the lessee gets all the working interest production. (Working interest production is the total oil produced less the landowner's royalty, usually one eighth.)

"Oil payments" or "retained oil payment" contracts are usually contingent upon the actual production of oil. Such contracts invariably contain clauses which limit the liability to such contingency, by such terms as "payable from oil production, if, as and when oil is produced." It is readily seen that such wording eliminates actual personal liability to the lessee if no production is obtained, and limits it to the amount obtained under any condition.

Theory of Accounts

In accounting for leases generally the better method segregates the accounting so that management can definitely ascertain the operating results for each unit or lease.

When a lease is purchased an account is opened for such lease with the bonus cost, the legal and filing fees and any other costs in its connection forming the nucleus. The same items are carried to a central account called Unoperated Leases. This last account covers all unoperated leases; the former account covers each individual lease. Of course the sum of the charges of all unoperated leases must equal the total of the control account in much the same way that the accounts receivable individual balances agree with the single balance in the control account.

When an unoperated lease is selected for drilling it is transferred to two other control accounts called Operated Leases—

Equipment and Operated Leases—Expense. The individual lease account need not be literally done over; the information is merely transferred to the new classification under that control, closing the old account and opening the new.

When operations start book entries must be classified as to capital and expense, and the various classifications under each of these two heads should be strictly made. These classifications are facilitated by use of columnar books, known as lease equipment and lease expense ledgers. The total of all classifications in all lease accounts in these ledgers is equal to the two general ledger control accounts known as Operated Leases—Equipment and Operated Leases—Expense.

Since nearly everything of concern to an oil producer is embraced in leases, operated or unoperated, a description of these ledgers is highly important in the theory of oil accounting. Further description follows under "Accounts Required by An Oil Producer."

But such other accounts as are necessary must be reckoned with. These are usually automobile expense, interest, taxes, depreciation of general equipment, superintendents' salaries, etc., where there is no possibility of the cost being allocated to individual leases. Such items are posted to accounts in the general ledger. Equipment accounts, such as office furniture, adding and calculating machines, and any other equipment used for all operations are likewise handled entirely through the general ledger.

Accounts Required

General and Operated Lease Ledgers—The following chart of general ledger accounts, showing account numbers or symbols, is suggested for the records of an oil producer:

Assets

1. Cash
    (a) Petty Cash
    (b) Cash in Bank
2. Accounts Receivable
3. Notes Receivable
4. Inventories
5. }
6. } (Other accounts as local conditions warrant)
7. }

8. Equipment
    - (a) Lease Equipment
        - (a-1) Dwellings—other buildings
        - (a-2) Tanks
        - (a-3) Powers and Pumping Equipment
        - (a-4) Other Lease Equipment
    - (b) Well Equipment
        - (b-1) Casing
        - (b-2) Pipe and Tubing
        - (b-3) Sucker Rods
        - (b-4) Other Well Equipment
    - (c) General Equipment
        - (c-1) Trucks and Tractors
        - (c-2) Clean-out Tools
        - (c-3) Other General Equipment

9. Leases
    - (a) Operated
    - (b) Unoperated

10., 11., 12. (Other accounts as local conditions warrant)

13. Deferred Charges
    - (a), (b), (c) Individual deferred charges

14. Prepaid Items
    - (a), (b), (c) Individual prepaid items

LIABILITIES

100 Accounts Payable
101 Notes Payable
102, 103, 104, 105, 106 (Other liabilities as local conditions warrant)
107 Reserve for Depreciation
108 Reserve for Depletion
109 Reserve for Amortization
115 Profit and Loss
120 Proprietor's Investment (or if corporation, capital account)
121 Surplus account (if corporation)
200 Income (control account)
400 Expense (control account)

The main captions may be further segregated by additional use of alphabetical and numerical symbols to fit any reasonable number of classifications.

The income accounts in a subsidiary ledger are suggested as running from 200 to 399 in order to give room for any reasonable number of classifications of income. The numbering system for expenses, also kept in a subsidiary ledger, from 400 up, will allow for any number of expense classifications.

The following income and expense classifications are suggested:

200 Income Control
- 201 Oil Production
- 202 Natural Gas Sales
- 203 Power Sales
- 204 Pumping (for others)
- 205 Pulling wells (for others)
- 207 Steam Sales
- (Succeeding numbers may be used for any other income, depending on local conditions)

400 Expense Control
- 401 Labor
- 402 Repairs
- 403 Supplies
- 404 Gas, Oil, and Grease
- 405 Water
- 406 Electric Current
- 407 Auto and Truck Operation
- 408 Fuel
- 409 Taxes
- 410 Insurance
- 411 Depreciation
- 412 Depletion
- (Succeeding numbers may be used for any other expense, depending on local conditions)

These designations may be further broken down by symbols such as those that follow:

401 Labor
- 401 (a) Superintendence
- 401 (b) Drilling Labor (if not capitalized)
- 401 (c) Lease Labor
- 401 (d) Truck Drivers
- 401 (e) Miscellaneous Labor

Repairs may be designated:

402 Repairs
- 402 (a) Parts
- 402 (b) Labor—Installing Parts
- 402 (c) Miscellaneous

The above examples are fair illustrations of how the system works.

There are comparatively few general ledger accounts by reason of this classification. The detail accounts are carried in subsidiary ledgers and the only connection they have with the general records is through the control accounts.

These subsidiary lease ledgers are columnar, with one column for the total of all the items being posted to that lease account, and numerous columns for the distribution of sundry items making up the totals. This allows one to prove his distribution by comparing the total of the distribution columns with the total column. This total column must, in turn, equal the amount shown in the control account in the general ledger.

Since each of the columns is for only one expense, for example, labor, the reader will probably wonder how 401 (a) superintendence, 401 (b) drilling labor, 401 (c) lease labor, 401 (d) truck drivers, and 401 (e) miscellaneous could possibly be handled in the one column. Since the chart shows 401 as labor, all that is necessary to designate the individual items in the column headed 401 is the alphabetical designations (a), (b), (c), (d), or (e), preceding the entry. If there is \$50.00 entered in labor column 401, and this is preceded in the margin by the letter (d) it is seen immediately that \$50.00 was paid for labor as a truckdriver.

The lease equipment ledger is used very much as the lease expense ledger, except that there are not so many general classifications. It is noted that under (8) Equipment, there are three general classifications, (a) lease equipment, (b) well equipment, and (c) general equipment. These would require three columns, and (a1), (a2), (a3) etc., in column a would designate whether the items consisted of dwellings, tanks, or powers and pumping equipment, etc. These base symbols would head the columns respectively, and all entries in each respective classification would belong in that column.

Both the lease equipment and the lease expense ledgers are really ledgers, and, of course, one sheet is necessary for each lease account. A good way to handle these books is to use individual tabs, each bearing the name of the lease. This plan facilitates posting and promotes general accuracy.

The Unoperated Lease Ledger

Some explanation should be made of the individual unoperated lease account. When a lease is taken the account is opened, showing the lessor, the lease number, if any, the name of the lease, field location, date of lease, state, county, range, township, section number, expiration date, number of acres, class of title, bonus cost, name of party in whose name lease is held, where rental is to be paid, to whom it is payable, amount of rental, the operator's interest in the lease, other interests, if any, landowner's interest, the operator's interest, date development began (for later use), and remarks. It is well to have spaces at the top of the ledger sheet designating each of these items. Complete and accurate information on these points is highly advisable for rental payments, depletion reports, and other purposes.

Below the above information on the same sheet is an ordinary three-column ledger ruling (debit, credit, balance) for the financial transactions, including bonus paid during the period while the lease was in the unoperated stage.

When operations begin there should be a general (and subsidiary) ledger entry made charging the Operated Leases (control and detail) account, and crediting the Unoperated Leases (control and detail) account.

Sales

Sales are predominantly of crude oil. The purchasing company (usually a large refining concern) takes the oil from the producer's tanks from day to day as the oil is accumulated. It is run through the purchasing company's gathering pipe lines and is paid for at the standard posted price semimonthly or monthly, according to custom in the field. The standard posted price varies for different grades of oil, which are graded according to specific gravity. The gravity test is made to ascertain the gasoline content.

Usually all the oil (the producer's interest and the landowner's royalty) is run together. But the royalty, and any other interests, for that matter, are paid for directly to the respective owners by bank checks. These checks are invariably accompanied by division statements, which show the detail runs in barrels (carried to several decimals) and total runs. The price is shown and extended on each run, because both the gravity and the per-barrel price

sometimes vary. From this total the gross production tax and an allowance for base sediment is deducted, leaving the amount to be distributed. This distribution is based on a document called a "division order" which every purchaser of crude oil, in its own defense, requires before it will make any distribution. These division statements show, in addition to the money value, the barrels of production, which is also apportioned between the holders of interests, which is needed in calculations for cost depletion.

Accounting for that portion of the oil production, which, for any reason, belongs to outside parties is an important part of the accounting procedure. Outside interests may be carried-interests or secret working interests unknown to the purchasing company since they were not recorded in the county records. It is needless to state that these outside interests must be paid in cash, or credit given on the records for eventual payment. Of course, a condition of this kind precludes the possibility of considering the total oil as income to the producer. He must include as income only the portion applicable to his own interest.

On the other hand, the producer sometimes "operates" the lease, paying all the expenses and, indeed, sometimes buying all necessary equipment with his own funds, to be reimbursed by the other holders of interests at stated times. The total he pays in this case is not his expense or his equipment, but is his only to the extent of his ownership in the whole, the amounts paid for others being in the nature of accounts receivable to him.

The total expenditure is usually calculated for a definite period, and this amount is apportioned to the sundry parties in a summary. This, in turn, serves as a statement of account to other holders of interests. Some operators insist on dividing each invoice as it is entered. This method involves much additional work and produces no compensating advantages.

General Expenses

General expenses are those not applicable to leases in the oil business. This expense includes such items as superintendence, traveling expense, taxes, depreciation of general equipment, office expenses, and general insurance.

General Sales

By general sales is meant sales other than those applicable direct to individual leases. Of course, oil sales, gas sales, steam sales, power sales, etc., can be allocated without any question to leases. Miscellaneous sales—scrap material, for instance—would likely not be possible to allocate, and, indeed, some of the power, steam, and other sales mentioned above might require the use of this account.

Some operators desire that the net general profit or loss be apportioned to the lease operations, and any other operations conducted by the operator as overhead. This is a requirement of the internal revenue department for the purpose of ascertaining the net lease income for calculation of net income depletion by the statutory method, which is limited to 50 per cent of income.

No specific method of making this allocation is prescribed, but two methods are in general use and both are apparently satisfactory. One is based on the total expenses (exclusive of that being allocated) and the other is on the total income (exclusive of that being allocated).

Since the expense to be allocated is usually in excess of the income the net difference is the amount to be used. This amount is prorated by percentage to all leases, and to such outside operations as the oil producer has, with the result that all overhead is eliminated. The profit or loss can then be stated to apply to the individual units alone, together with the outside operations other than overhead.

Bookkeeping Methods

The bookkeeping system of oil producers generally includes the following records to which transactions are posted from book of original entry.

The General Ledger contains the usual accounts for assets, liabilities, capital, surplus, or profits; and income and expense controls of detailed entries in subsidiary ledgers together with operating accounts not contained in subsidiary ledgers.

Accounts Receivable Ledgers contain the record of transactions with those who have been charged for oil, gas, or any other sales or other obligations of customers to the producer.

FINANCIAL STATEMENT

BLANK OIL COMPANY

BALANCE SHEET

December 31, 1940

ASSETS

	Cost	Depr'n Reserve	Net Value	
Current				
List individually cash, accounts receivable, inventories, etc.			xx,xxx.xx	
Total				xx,xxx.xx
Fixed				
List physical assets by leases (detail in subsidiary account)	xx,xxx.xx	xx,xxx.xx	xx,xxx.xx	
Total				xx,xxx.xx
	Cost	**Depletion Reserve**	**Net Value**	
Lease Investment				
List individual leases	xx,xxx.xx	xx,xxx.xx	xx,xxx.xx	
Total				xx,xxx.xx
Lease Investment—Unoperated				
List individual leases			x,xxx.xx	
Total				x,xxx.xx
Deferred Items				
Sundry lists			x,xxx.xx	
Total				x,xxx.xx
Total Assets				xxx,xxx.xx

LIABILITIES

Current		
List individually accounts payable, notes payable, etc.	x,xxx.xx	
Total		xx,xxx.xx
Reserves Other than Depreciation and Depletion		
List Individually	xxx.xx	
Total		x,xxx.xx
Investment		
Balance Beginning of Period	xx,xxx.xx	
Earnings Current Period	x,xxx.xx	
Total		xx,xxx.xx
Total Liabilities and Investment.............		xxx,xxx.xx

Operating Statement of an Oil Producer

Blank Oil Company

Statement of Earnings and Expenses

Year Ended December 31, 1940

Income		
Oil Production (as shown by subsidiary schedule, or listed here by individual leases)		x,xxx.xx
Gas Production (as shown by subsidiary schedules, or listed here by individual leases)		x,xxx.xx
Other Income:		
Steam Sales	xxx.xx	
Interest and Discount	xxx.xx	
Other Income (listed or scheduled)	xxx.xx	x,xxx.xx
Gross Profit		xx,xxx.xx
Deductions from Income		
Lease Operating Expense (as shown by subsidiary schedule, or listed here by individual leases)	x,xxx.xx	
General and Administrative Expenses (as shown by schedule, or listed here in detail)	x,xxx.xx	xx,xxx.xx
Operating Profit		x,xxx.xx
Add Other Income		
Sale of leases, net	x,xxx.xx	
Other Incomes (list)	x,xxx.xx	
Less Other Deductions		
Sundry (as local conditions prevail)	xxx.xx	x,xxx.xx
Total Deductions		x,xxx.xx
Calculation for Depreciation		

Blank Oil Company

Schedule of Depreciation

Year Ended December 31, 1940

Name of Lease	Cost	Prior Depr'n	Depr'n 1940	Total Reserve	Value Dec. 31, 1940
Casing	x,xxx.xx	xxx.xx	xxx.xx	x,xxx.xx	x,xxx.xx
Tubing	x,xxx.xx	xxx.xx	xxx.xx	x,xxx.xx	x,xxx.xx
(List other Classes of Equipment)					
Total	xx,xxx.xx	x,xxx.xx	x,xxx.xx	x,xxx.xx	x,xxx.xx

Blank Oil Company
Schedule of Depletion
Year Ended December 31, 1940

Income	North Lease	South Lease	Other Income	Over-head	Total
Oil Sales	x,xxx.xx	x,xxx.xx			xx,xxx.xx
Gas Sales	xxx.xx	xxx.xx			xxx.xx
Profit—Drilling Contract			x,xxx.xx		x,xxx.xx
Sale Outside Acreage			xxx.xx		xxx.xx
Steam Sales				xxx.xx	xxx.xx
Interest and Discount				xxx.xx	xxx.xx
Miscellaneous				xxx.xx	xxx.xx
Gross Income	xx,xxx.xx	xx,xxx.xx	x,xxx.xx	x,xxx.xx	xx,xxx.xx
Deductions					
Lease Operations	x,xxx.xx	x,xxx.xx			x,xxx.xx
Administrative Salaries and Expense				x,xxx.xx	x,xxx.xx
Auto and Truck Expense				x,xxx.xx	x,xxx.xx
(List Sundry Other items of Overhead)				x,xxx.xx	x,xxx.xx
Depreciation	x,xxx.xx	x,xxx.xx		x,xxx.xx	x,xxx.xx
Subtotal	x,xxx.xx	x,xxx.xx	–0–	x,xxx.xx	xx,xxx.xx
Subtotal, net overhead				xxx.xx	
Prorate net overhead to leases	xxx.xx	xxx.xx		(xxx.xx)	
Total Deductions	x,xxx.xx	x,xxx.xx	–0–	–0–	xx,xxx.xx
Profit or (Loss), except depletion	x,xxx.xx	x,xxx.xx	x,xxx.xx	–0–	xx,xxx.xx
Calculation:					
27½% of Production	x,xxx.xx	x,xxx.xx			
50% Net Profit Method	x,xxx.xx	x,xxx.xx			
Cost Method	x,xxx.xx	x,xxx.xx			
Depletion Allowable *	x,xxx.xx	x,xxx.xx	–0–	–0–	x,xxx.xx
Net Profit or (Loss)	x,xxx.xx	(xxx.xx)	x,xxx.xx	–0–	x,xxx.xx

* *Note:* The depletion allowable is that amount which is based on (1) the larger of cost method or (2) the lesser of the 27½ per cent of production method or the 50 per cent of net profit method; whichever is most favorable for income-tax purposes.

Lease Ledger—Operated Leases—Investment—Ledger accounts for investments and equipment in leases from the time they are placed in operation (usually when drilling for oil starts), and continues as long as the leases are continued in operation. This ledger gives in detail individual operated lease accounts and is controlled by the operated leases investment account in the general ledger.

Lease Ledger—Unoperated Leases accounts for investments in leases from the date of purchase to the time they are placed in

operation (usually when drilling for oil starts). It is a detail ledger and is controlled by the unoperated leases account in the general ledger.

Lease Ledger—Operated Lease Expenses accounts for expenses of every nature from the time a lease is placed in operation. It is an operating detail account for each lease and is controlled by a general account (for all operated lease expenses) in the general ledger. It is closed out when the books are closed at the ends of financial periods in the same manner as are other profit and loss accounts.

Payroll Records are detailed records of payrolls prepared as to individual employees to conform with social security taxes and wage and hour laws so as to facilitate preparation of statements and reports to government bureaus and to employees.

Accounts Payable Ledgers contain a record of invoices for purchases from others of equipment, repairs, supplies, etc.

Entries to these records are made in the manner similar to that of any other satisfactory accounting system. Some books, particularly the lease records, are peculiar to the oil industry. Long experience and practice has demonstrated that these are practicable in that they eliminate a multiplicity of detail and provide the required result in one place.

Specially ruled ledgers are used in very large oil companies for recording oil production and sales. However, since there are never more than two sales per month, the average producer needs to use only the common ledger sheet for this purpose. But whatever form is used, it is always well to enter the number of barrels preceding the money proceeds in each entry.

OUTDOOR DRIVE-IN THEATRES

By

JOHN L. REEVES*

BRIEF DESCRIPTION OF BUSINESS

Outdoor drive-in theatres are an important and fast-growing part of the American amusement business. The types that we are chiefly concerned with in this chapter are those that display moving pictures on outdoor screens and are located on acreage in areas set apart from residential localities.

The principal sources of income of this business are from admissions and concessions. The admissions charges may be based upon each vehicle or upon each person entering, or upon both factors depending upon the operator's policies. Concession income will be based upon sales of food, soft drinks, ice cream, and confections.

Where theatres are constructed near shopping centers, race tracks, or parks, the tendency is to construct miniature parks for the children's amusement while the adults watch the movies. Such parks contain merry-go-rounds, slides, miniature autos, dodgems, etc., which are operated inside the theatre grounds (usually free) or outside the theatre grounds for admission fees.

An example of this latter kind of operation is to be found opposite North Randall Race Track near Cleveland, Ohio, where two miniature parks, a golf-practice driving range, and several restaurants are a part of the family recreation center.

THEORY OF ACCOUNTS

The accounting requirements of outdoor drive-in theatres will vary according to several kinds of operations in common use. First, there is the total ownership type of operation where the land, structures, and equipment are owned by the operating company; and the refreshment stand, juvenile playground, or other amuse-

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ments are operated by the owners. Second, there is the leasing type of operation where the land is leased from outsiders or a separate company, the structures owned by the lessees, and the concessions operated by the operating company or leased out to others.

Accounts Required

In the first type of operation described above, the operators will need accounts in which to record: (1) income accounts, (2) inventory, purchase, and operating expense accounts, and (3) asset, liability, and net-worth accounts.

The following ledger accounts will usually be necessary:

Income

(1) Admissions (including only ticket sales)
(2) Sales or Concessions (departmentalized if desirable)
(3) Discounts (cash discounts on purchases)
(4) Miscellaneous (sundry earnings)

Cost of Goods Sold

(5) Purchases (food, soft drinks, ice cream, confections, etc.)
(6) Inventory Variations

Operating Expenses

(7) Official Salaries (officers, partners or proprietor)
(8) Other Salaries and Wages (departmentalized if desirable)
(9) Film Rental, Transportation and Booking Charges
(10) Maintenance and Service (cleaning and policing)
(11) Repairs—Buildings, Grounds, and Equipment
(12) Electricity and Water
(13) Insurance (expense within year)
(14) Taxes (real estate, classified property, franchise, social security, unemployment, etc.)
(15) Supplies (tickets, stationery, tools, etc.)
(16) Sundry Other Expenses
(17) Provision for Depreciation—(see footnotes)
    (a) Buildings
    (b) Improvements to Land
    (c) Main Service Lines—Electric and Water
    (d) Screen Structure and Equipment
    (e) Portable Amusement Devices
(18) Advertising
(19) Automobile Expense
(20) Telephone and Telegraph
(21) Interest Expense

(22) Federal Income Taxes
(23) Income and Expense Adjustment

Assets

Cash on Hand—Undeposited
Cash in Bank (name of bank)
Inventories—
  Merchandise for Sale
  Supplies
Land
Buildings and Improvements to Buildings
Improvements to Land
Main Service Lines—Electric and Water
Screen Structure and Equipment
Portable Amusement Devices
Unexpired Insurance Premiums
Deferred Charges to Future Operations

Liabilities

Accounts Payable (trade creditors)
Notes and Mortgages Payable (current)
Other Loans
Accruals—
  Payroll
  Employees' Federal Withholding Tax
  Real Estate Taxes
  Federal Admissions Tax
  State Admissions Tax
  Federal Insurance Contributions—Employee
  Federal Insurance Contributions—Employer
  Federal Unemployment Excise Tax
  State Unemployment Taxes
Long-Term Liabilities
Provision for Federal Income Taxes

Capital

Capital Stock (if incorporated)
Investment (partnership or proprietorship)
Capital Surplus (paid-in, donated, revaluation, etc.)
Earned Surplus (net income, less taxes and dividends)

OPERATING STATEMENTS

The following are suggested condensed statements ,of income and expense and balance sheet:

NAME OF COMPANY

STATEMENT OF INCOME AND EXPENSE

For the Period ________ 19__ to ________ 19__

Income		
Admissions		$ xxx
Sales	$ xxx	
Less: Cost of Goods Sold		
Inventory—Beginning of Period	xxx	
Add: Purchases—Merchandise	xxx	
	xxx	
Less: Inventory—End of Period	xxx	
Cost of Goods Sold	xxx	
Net Gain on Sales		xxx
Gross Income from Operations		xxx
Less: Selling and Administrative Expenses		
Official Salaries	xxx	
Other Salaries and Wages	xxx	
Film Rental, Transportation and Booking Charges	xxx	
Maintenance and Service	xxx	
Repairs—Buildings, Grounds and Equipment	xxx	
Electricity and Water	xxx	
Insurance Expense	xxx	
Taxes (other than income)	xxx	
Supplies Used	xxx	
Provision for Depreciation	xxx	
Advertising	xxx	
Automobile Expense	xxx	
Telephone and Telegraph	xxx	
Total Operating Expenses		xxx
Net Income from Operations		xxx
Add: Financial Income		
Cash Discounts Earned	xxx	
Sales of Equipment, Etc.	xxx	
	xxx	
Less: Financial Expense		
Interest Expense	xxx	
Net Financial Income (or Expense)		xxx
Net Gain Before Federal Income Taxes		xxx
Less: Provision for Federal Income Taxes		xxx
Net Gain (or Loss) to Surplus		xxx
Surplus		
(beginning of period)	xxx	
Add or Deduct		
Dividends Declared or Paid, Miscellaneous Adjustments for Prior Periods, Etc.	xxx	xxx
Earned Surplus		
(end of period)		$ xxx

NAME OF COMPANY

BALANCE SHEET

For the Period Ended _______ 19__

ASSETS

Current Assets		
Cash—On Hand	$ xxx	
—On Deposit (name of bank)	xxx	$ xxx
Inventories—		
Merchandise	xxx	
Supplies	xxx	xxx
Total Current Assets		xxx

Property Assets	Cost	Depreciation	Net	
Land	$xxx		$xxx	
Buildings and Improvements	xxx	$xxx	xxx	
Land Improvements	xxx	xxx	xxx	
Service Lines	xxx	xxx	xxx	
Screen Structure and Equipment	xxx	xxx	xxx	
Portable Amusement Devices	xxx	xxx	xxx	
Net Property Assets	$xxx	$xxx		xxx
Prepaid and Deferred Charges				
Unexpired Insurance Premiums			xxx	
Other Deferred Charges			xxx	
Total Prepaid and Deferred Charges				xxx
Total Assets				$xxx

LIABILITIES

Current Liabilities		
Accounts Payable		$xxx
Notes and Mortgages Payable (current portion)		xxx
Other Loans (due within one year)		xxx
Accruals—		
(list as shown above)		xxx
Provision for Federal Income Taxes		xxx
Total Current Liabilities		xxx
Long-term Liabilities (due after one year)		
(Describe)		xxx
Total Liabilities		xxx

NET WORTH

Capital Stock		
(Describe)	$xxx	
Capital Surplus		
(Describe)	xxx	
Earned Surplus	xxx	
Total Net Worth		xxx
Total Liabilities and Net Worth		$xxx

BOOKKEEPING METHODS

The records required in accounting for the operations of outdoor drive-in theatres are:

The General Ledger which eventually receives all postings from books and records of original entry. This ledger becomes the final record from which financial statements are constructed.

The Cash Receipts Journal in which all cash received is recorded from daily cash summaries and in which monthly totals are footed, balanced by double-entry method, and posted to the general ledger.

The Disbursements Journal in which both check and cash disbursements are recorded and distributed according to classification of expense, purchase, or reimbursement. The footings are posted monthly to the general ledger.

The General Journal in which all adjusting and closing entries are recorded. Each entry in this book is usually posted separately to the general ledger.

The Payroll Record in which all salaries and wages are recorded for each individual in order to keep a permanent record. This book is useful in the preparation of all payroll reports, such as industrial insurance, federal withholding, federal insurance contributions, federal withholding excise tax, state unemployment tax, state labor statistical reports, etc.

Accounts Payable Subsidiary Ledger to keep records of amounts owed to various creditors on open accounts for purchases, etc. This ledger can be dispensed with in some cases where all bills are paid currently in order to simplify the bookkeeping.

Daily Cash Summaries for the recording each day of all cash movement in and out of the cash on hand. Ticket numbers should appear thereon at beginning and close of the day's business for audit purposes, also to expedite the filing of federal and state admissions tax forms. As this money must be remitted promptly after the close of each month to the government, it is wise to deposit it in a separate tax account so that it will not be used for any other purpose.

An *Insurance Expiration Record* should be kept in order to be currently informed on expirations and proper insurance coverage. This record, when used to best advantage, eliminates much loss of time for the bookkeeper in computing unexpired premiums for statement purposes.

A *Property Asset Ledger* is very useful in recording all purchases of such assets, the depreciation applied thereto, and the details and depreciation of each asset. In case of sale, or fire loss, or

dispute with taxing authorities, the undepreciated balances may be easily determined.

Depreciation

In view of the unusual importance of depreciation in outdoor drive-in theatre operations, it seems fitting that bookkeepers should be informed of the attitude of federal and state taxing authorities toward the classification and depreciation of their property assets.

Total Ownership

If money is invested by the operators in such assets, where total ownership and exploitation of the theatre site is contemplated, the rates of depreciation usually will be held down to the estimate of useful life of the assets by the Bureau of Internal Revenue. We present the following rates of depreciation which have been approved by the Bureau* engineering staff for northern Ohio drive-in theatre operations of this type:

1. Improvements to land (includes walls, ramps, roads, fencing, drainage, sanitary sewers, etc.)—4%.
2. Buildings (includes concession booths, projection booth, all improvements including heating and air-conditioning, plumbing, etc.)—4%.
3. Main service lines for electricity and water—10%.
4. Personal (tangible) property (includes screen and screen structure, signs, billboards, ticket and projection booth equipment, sound heads and supports, yard lighting, all equipment installation costs as well as freight and cartage and all other ancillary or auxiliary equipment)—10%.
5. Merry-go-rounds, seesaws, and other juvenile entertainment equipment are subject to short-term treatment for federal tax purposes—20%. The state of Ohio will, upon petition, consider claims for a shorter life than five years.

The State of Ohio† levies property taxes against two classes of assets used in business, i.e., real estate and "personal" property. The classes are segregated as follows for outdoor drive-in theatres.

Real Property

1. Land and improvements to land, including retaining walls, piling, and foundations for the improvement of the site; private roads, walks, paving, areaways, culverts, bridges, viaducts, fencing; artificial lakes, drainage, storm, plant waste, and sanitary sewers.
2. Buildings and improvements to buildings, including foundations, floors, frames, permanent partitions, walls, roofs, stairways, and canopies; built-in

* Bureau of Internal Revenue Engineering Department, Hanna Building, Cleveland 14, Ohio (1951).

† Regulations promulgated by the Tax Commissioner of Ohio (1948), Ohio Department of Taxation, State Office Building, Columbus, Ohio.

system for heating, air conditioning, ventilating, sanitation, fixed fire protection, plumbing, and drinking water.

3. Main service lines for electric power circuits and water.

Personal Property

1. Screen and screen structure.
2. Neon signs, billboards, etc.
3. Ticket booth equipment.
4. Projection booth equipment.
5. Sound heads, and supports and wiring.
6. Yard lighting.
7. All electric wiring except for lighting in box office and projection room.
8. Lunch stand or restaurant facilities.
9. Repair parts and supplies.
10. All freight, cartage, and installation costs of equipment.
11. All other engines, machinery, tools and implements of every kind, including foundations, used or designed to be used in the above industry, or incidental thereto, with their installation costs, including all equipment ancillary or auxiliary to any of the personalty above listed.

Lease Ownership

It must be borne in mind that, where the land is leased by the operators from landowners for a specific period of time, the basis of depreciation of certain assets (otherwise of long-life character) may be considerably shortened by the terms of the lease.

All assets that are of a fixed, unsalvable character not suited for use or sale after the expiration of the lease may become obsolete and thereby the object of obsolescence deductions in addition to normal depreciation.

General

The foregoing examples of account requirements and statement preparation are set up to assume a total ownership operation.

If the operators are lessees of the property or lessors of the concessions in which they have invested money, the suggested accounts in these examples will have to be altered to provide for rentals paid or received. In such cases, the concession accounting is greatly simplified.

ACCOUNTING FOR PAINT MANUFACTURERS

By

W. R. Sieplein *

Brief Description of Business

The paint, varnish and lacquer industry embraces the manufacture and sale of products intended for the protection and decoration of the exterior and interior surfaces of buildings, bridges, vehicles, ships, airplanes, furniture, implements, machines, and other items.

These products fall into three general classes: (1) paint or enamel, a compound of pigment mixed with a drying oil or varnish which becomes dry and hard in a few hours through oxidation, by air drying or baking in an oven at a moderate temperature; (2) lacquer, a compound of pigment and nitrocellulose with suitable solvents, diluents, and plasticizers which dries very rapidly in a few minutes through evaporation; and (3) varnish, a clear compound of natural or synthetic resin, vegetable oil, and reducer which dries similarly to paint or enamel. Oil paints are generally used for exterior of buildings and bridges; flat wall paints and enamels for interior decoration; lacquers for automobiles and airplanes, varnish for furniture, interior woodwork, and floors.

The great bulk of paint, varnish, and lacquer is compounded by manufacturers who procure the pigments, resins, and vehicles from producers of these primary raw materials. It is then distributed for household consumption through hardware or similar dealers. In most cases it is applied by contracting painters, though many products are designed to be used by the householder. Other products are supplied directly from the producer to industrial manufacturers of equipment, machinery, automobiles, furniture, and other items, or directly to railways, ship builders, War, Navy, state

* General Supervisor of Costs of The Sherwin-Williams Company, Cleveland, Ohio.

highway departments, and others. Some of the large paint manufacturers operate their own retail stores to serve the general public.

As paint, varnish, and lacquer are used both for new construction and for maintenance and upkeep, the industry is not subject to such great fluctuations in demand as are some industries. The fact that the manufacture of paint, varnish, and lacquer does not necessitate much expensive machinery brings about a condition in which there are many small, short-lived establishments in the industry. The Bureau of Census records that during 1941 there were 680 establishments with an annual business of $555,398,819.00.

The problems in the general accounting of the industry do not differ greatly from those in the average industrial manufacturing enterprise. Accounting involves investment in a plant including land, buildings, and equipment, and in raw materials and manufactured product inventories. The plant is comparatively simple, consisting of mixing, grinding, filling, and other chemical process machinery. Cost accounting, however, is of great importance, and is described more fully in later paragraphs.

Most products for painters or household use are filled into containers of from five to one gallon or of a smaller capacity, and are prepared for stock in preparation for anticipated demand. These cover a wide variety of colors and character of finish, and to properly serve the dealer trade the manufacturer must maintain a current stock approximating 25 per cent of the amount of annual sale. This feature requires the keeping of careful records to avoid production of items which do not sell regularly, thus unduly increasing the investment in manufactured products.

Industrial requirements are usually produced on order and supplied directly to the consumer as required in packages of from 5- to 50-gallon drum capacity, the manufacturer carrying very little, if any, stock of manufactured products prepared for future shipment.

As a wide variety of primary raw materials are required, and many intermediate materials, such as varnish and lacquer bases, must be processed before mixing, careful records and thorough control of stock must be exercised to insure adequate supply at all times and to avoid the accumulation of surplus or obsolete stocks.

The credit terms of the better houses of the industry are usually 1 per cent discount for cash in 10 days or 30 days net, though,

under certain conditions, a dealer is invited to send in stock orders very early in the year, with longer credit for 60 to 90 days, to allow payment after the paint has been bought for spring painting.

Theory of Accounts

The paint manufacturer requires a complete accounting for assets and liabilities and for the sales of various classifications, as well as a careful analysis of the expense for selling and the cost of manufacture. It is quite usual to subdivide the sales volume and corresponding expenses for trade and dealer sales, and for industrial sales.

Trade sales involve greater investment in a wide variety of manufactured products, together with considerably greater selling expense. The sales representative solicits orders from many small dealers and painters who require a great extension of credit terms. Industrial sales are usually to large and strong accounts who buy a substantial volume of a limited number of products.

Advertising is primarily to develop consumer demand for products offered to the dealers, and should be accounted for in sufficient detail to show expenditure for individual products to indicate volume of sales developed.

Efficient management is based on a complete knowledge of the expenditure for each activity and an accurate accounting of the results obtained. This method insures a carefully prepared budget and close supervision of the progress during the fiscal period.

Space does not permit a complete treatise on the accounting procedure in general use in the industry, but a study of the accounts of many individual companies indicates that they observe a general pattern about like the following, subdividing the accounts as may be needed. The names of the accounts are sufficiently comprehensive to indicate their purpose. They also suggest an outline for the balance sheet and the profit and loss statement.

Need for Accurate Cost-Figuring

A careful accounting for all materials costs and factory operations is necessary to fix selling prices and to control factory production. Such a comprehensive cost system serves as a rudder for the business. The history of successful manufacturing concerns indicates that a true knowledge of costs is one of the foundation stones upon which the success was built.

Accounts Required

Chart of Accounts

Current Assets
- Cash
- Accounts Receivable
- Notes Receivable
- Investments in Securities

Inventory Assets
- Raw Material
- Packages
- Materials in Process
- Manufactured Products
- Fuel
- Supplies

Fixed Assets
- Land
- Buildings and Permanent Fixtures
- Machinery and Equipment
- Furniture and Fixtures
- Trucks and Automobiles

Prepaid Expenses
- Insurance
- Advertising
- Interest
- Taxes

Current Liabilities
- Accounts Payable
- Notes Payable

Accruals
- Payrolls
- Interest
- Taxes

Fixed Liabilities
- Mortgages
- Bonded Debt

Reserves
- Depreciation
- Bad Debt Losses
- Income Taxes

Net Worth
- Capital Invested
- Surplus
- Current Profit and Loss

Trading Loss and Gain Account
- Sales
- Cost of Sales

Selling Expenses
- Sales Department Salaries
- Sales Department Expenses
- Advertising
- Outgoing Freight

Administrative Salaries

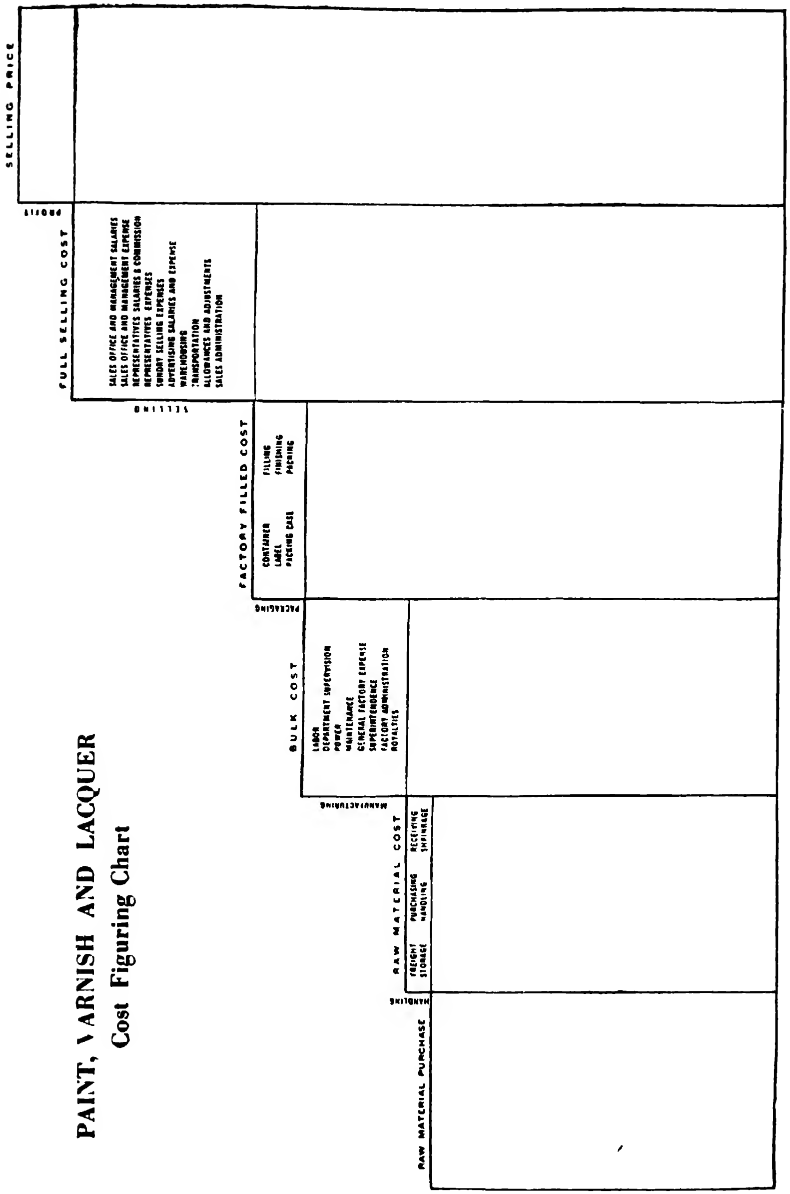
Administrative Expense

Other Income
- Discount on Purchases
- Interest on Notes Receivable
- Interest on Investments
- Miscellaneous

Other Charges
- Interest on Notes Payable
- Cash Discount on Sales
- Miscellaneous

Factory Expense Ledger
- Controlling Accounts for Factory Cost System

To be of most service the system must be extremely simple and free from complicated details. In fact, it should merely tie together production records and the indispensable accounting for payroll, raw material purchases, and expense account payments. The expenditure incurred in figuring costs has been found by many companies to be less than one fourth of 1 per cent of sales. In other words, it costs only 25 cents to obtain true knowledge of the cost of products for a sale amounting to $100.00. This nominal expense is more than justified by the security it brings about.



PAINT, VARNISH AND LACQUER
Cost Figuring Chart

Every manufacturer should sell his product with exact knowledge as to whether his price is above or below cost, and what profit or loss shall be realized on the sale. The study of cost details will reveal inefficiencies in production methods or use of materials and furnish to individuals responsible for various divisions of the factory operations, complete reports of the details of the work under their immediate direction. It provides constant reports showing what is happening in the plant rather than what has happened, and suggests immediate correction of inefficiencies.

Cost Figuring Method

The Cost Figuring Chart the preceding page and the Outline below illustrate the successive steps through which the cost and selling price are built up. A study of these, and the explanatory remarks which further define individual captions, should serve as a guide for small and large manufacturers to determine accurately the cost of paint, varnish, and lacquer products.

No attempt is made to cover all details of accounting procedure, assuming that each manufacturer will wish to suit his own individual requirements. The outline does, however, set down a complete logical set of fundamental principles upon which the detailed accounting should be based.

Manufacturing costs of individual products differ to so great an extent that averages cannot be safely used. A manufacturer figuring at an average cost will probably find himself receiving orders for those items on which the actual expenditure is high, and failing to secure orders because of high prices quoted on products in which the expense incurred is less than the average. Thus he would receive orders for unprofitable items while competitors would be favored with those affording larger profit.

A general observation of the cost of all products may be of interest here. A broad average of all products of the industry indicates the following general division of complete factory filled cost, including factory overhead:

	Per Cent
New Material	60-75
Package	12-15
Manufacturing expense	15-25

Again considering the general average of all products, it has been found that manufacturing expense is composed of approximately:

Labor	35-50
Expense	5-15
Overhead	50-60

A study of many individual company reports indicates: total manufacturing expense was from 12 to 15 per cent of the sales, and that total selling expense was from 25 to 50 per cent of the sales.

Cost Figuring System for Paint, Varnish and Lacquer Products

The cost of these products comprises the following elements: material, package, labor, expense, and overhead.

To standardize the terms used to designate intermediate steps in cost figuring, the cost may be divided into the following: (1) material cost, (2) bulk cost, (3) factory filled cost, and (4) full selling cost.

Material cost includes all raw materials used in manufacturing the product.

Bulk cost represents the product in bulk ready for filling into packages, and shall include: raw material, labor, power, factory expense, and factory overhead.

Factory filled cost includes the above cost of the product in bulk, also the container, packing case (if any), and other expenditure needed to prepare the product for shipment to the customer.

Full selling cost includes all of the foregoing items and, in addition, the expenditure for selling and distributing the product to the trade.

Selling price should cover all preceding elements and include the desired margin of profit.

Outline of Cost Figuring Account

The Raw Material Cost is the complete cost of raw material delivered to producing department ready for use. It embraces the following:

Purchase Price of Material

Market replacement cost at which material can be purchased should be used for all costs, serving as a basis for selling prices.

Price at which raw material has been acquired shall be used as the basis for determining actual cost of production.

Handling Freight or other charges for delivery to plant Purchasing—Salaries and Expense Receiving, Storage, Handling —Labor and Expense	To be added to raw material purchase price at a definite cost per 100 pounds or gallons

Shrinkage and handling losses to be added as a standard percentage for each individual item.

The Manufacturing Cost is the complete cost of processing resulting in product ready for sale. It embraces:

Direct Manufacturing Cost

All labor and expense employed in actual production of the products

Labor Productive: Mixing, Grinding, Cooking, Thinning, Thinning of Paints and Lacquers, Shading, Filtering, Storage of Varnishes, Blending	Assessed to individual product to cover time employed
Nonproductive: Janitors, Mill Dressers, Elevator Operator, Nonproductive Workmen Department Supervision Salaries: Foremen, Department Clerks Expense: Light, Heat, Telephone, etc., Sundry Dept. Expense	To be treated as department burden and added to productive labor on a percentage basis
Power—Fuel for varnish kettle fires Maintenance of machinery and equipment	Assessed against individual product at a standard cost per hour for time mill or kettle is occupied by individual product
Overhead General Factory Expense Supplies and general expense not chargeable to individual departments Superintendence Salaries: Superintendent Laboratory and technical men employed in control Factory Office Clerks Watchmen Expense: Factory Office Laboratory	To be treated as general burden and added to direct manufacturing cost on a percentage basis or at a fixed rate per unit of product. To be based on normal capacity operation of plant

Factory Administration
- Maintenance of Buildings
- Factory Administration Expenses
- Laboratory Research for development of new products
- Taxes on factory land, buildings, equipment, raw materials, and manufactured products
- Insurance Expense
- Insurance on buildings, equipment, raw materials and manufactured products
- Liability Insurance
- Social Security Tax
- Employees' Welfare
- Depreciation on buildings, machinery and equipment; to be figured on basis allowed by the U. S. Treasury, Income Tax Division
- Rent on factory buildings and land rented

Royalties
- Royalty paid for formula or process to be included in cost of individual item

Bulk Cost comprises all preceding elements.

Package and Packaging Cost
- Containers
- Labels
- Packing Cases
- Filling, Closing and Labeling Labor and Expense
- Packing and Stockkeeping Labor and Expense

To be added to bulk cost for each size package

Factory Filled Cost comprises all preceding elements to manufacture a product ready for sale.

Full Selling Cost embraces:

Factory Filled Cost and

Selling, Distributing, and Administrative Expense
- Sales Office and Management Salaries and Expense
- Representatives' Salaries, Commission, and Expense
- Stationery, Office Supplies, Stamps, etc.
- Allowance and Adjustments
- Warehouse Salaries and Expense
- Branch Warehouse Rent, Taxes, and Insurance
- Advertising Salaries and Expense
- Transportation on shipment to warehouses

To be included in cost on basis of a per cent added to complete factory cost

Cartage
Cash Discounts on Accounts Receivable
Bad Debts Charged Off
Sales Administration Expense
Technical Service for Consumers

Selling Price—Price per gallon or pound of product offered to the trade as a list price, subject to discount to Dealers and Jobbers or as a net price to Consumers. All prices to be based on full selling cost. No profit is realized until all selling expense has been provided for.

The following paragraphs amplify some important features of the foregoing outline so as to clarify certain phases of the individual captions mentioned.

Raw Material Cost

When estimating the cost of a product to serve as a basis for selling price, compute raw material cost at the price at which it can be purchased for the prospective business.

The cost of raw material used on any given day is usually that purchased from 30 to 60 days previous. If the market has changed greatly, it is no longer possible to procure at former market price the material which is now being used up. Thus, for a going concern, the current market replacement cost of raw material is the safe basis upon which to determine the cost. The freight or other delivery charges for incoming raw material should be added to the invoice price to determine the delivered cost per unit of material.

The cost to purchase, store, and handle raw material from the time it is ordered and received until put into the manufacturing process amounts to from 1½ to 3 per cent of the cost of material. This expenditure may be included at a definite rate per 100 pounds or gallons, or, for simplicity, may be added to delivered purchase price as a percentage. This proceeding is used not only with dry raw materials, but with liquids as well which may be received in drums or in tank cars and pumped immediately into storage tanks.

For manufacturers with medium-sized plants it has been found that this expense averages from 10 to 15 cents per 100 pounds for dry raw materials, from ½ to ¾ cents per gallon for liquid raw materials in tank cars, from 1 to 1½ cents per gallon for liquid raw materials purchased in drums. Certain manufacturers do not care to include this handling expense as a part of the cost of raw

materials, preferring rather to merge it with expense of mixing, grinding, etc. However, it is generally more satisfactory for close supervision to treat raw material handling labor and expense as a separate caption in factory operating expenditure and include it in the cost of individual raw material.

Shrinking and handling losses, arising from drying out, sifting, leakage, evaporation, etc., depend upon the character of the material and quantity handled. This loss averages:

Dry pigment	½ to 2%	
Resins, gums, nitro-cellulose	2 to 4%	
Nonvolatile oils and plasticisers	1 to 2%	Tank Cars
	2 to 3%	Drums
Volatile liquids	2 to 3%	Tank Cars
	3 to 5%	Drums

Manufactured Product and Formula Yield

The bulk or yield of a formula can best be determined by actual weight or measurement of raw material put into the process and by a count of filled packages or an actual measurement of bulk material produced. To calculate the theoretical yield of a formula, the manufacturer is referred to data included in a laboratory manual issued by the scientific section of the National Paint, Varnish, and Lacquer Association, Inc., covering the bulking value, specific gravity, oil absorption, etc., of many ingredients commonly used. These data will enable the formulator to estimate the number of gallons of paint, varnish, or lacquer resulting from the ingredients used. When making due allowance for manufacturing losses, a very accurate determination of the yield of any given formula may be reached.

Manufacturing Losses

All the following elements must be considered to determine the *material cost per gallon* or *pound* of the product in bulk ready for filling into the container. A considerable amount of raw material is lost in the process of manufacture. When putting material into the mix, some may be spilled or adhere to the container. During the operation of mixing, grinding, or cooking, evaporation occurs in volatile liquids. A certain amount of finished product adheres to the mixers, mills, etc., or is strained out as skins when the material is filled. A considerable loss occurs in varnishes and lacquer bases in storage tanks.

The amount of such loss can, of course, be determined definitely in regular factory production by actual measurement of volume or weight of raw material put into the process, compared with the quantity of finished product filled into containers. Obviously, however, it is necessary to forecast such results when estimating the cost of a product for prospective business.

This processing loss is a real factor, and research indicates that it varies from 1 to 6 or 8 per cent, depending upon the character of the product and the amount produced at one time.

Standard Manufacturing Labor and Expense

The foregoing illustrates that the cost to manufacture a paint, varnish, or lacquer is much more than the direct labor employed in the actual production. The labor necessitates supervision. Machinery is required which uses power. Also the buildings occupied, as well as the equipment, are subject to depreciation, insurance, taxes, maintenance, etc. Thus such overhead expense, which is equal to or greater than direct operating labor and expense, must be included to determine the complete manufacturing expense.

Many manufacturers having small plants may not care to figure costs on individual products excepting at a time when they are revising a price list or making a price on individual products, or for the purpose of pricing an inventory. Thus they desire to reduce cost figuring to the greatest simplicity, and it is for their convenience that the following average costs are indicated.

The complete labor, expense, and overhead to manufacture a product in bulk, ready for filling into containers, varies greatly, depending upon the formula, type of equipment used, and the quantity produced in one continuous run. Small runs naturally cause excessive manufacturing expense, and the cost may be several times as much as when manufacturing is done in full batches.

The experience of many manufacturers has shown that this complete cost varies from 3 to 4 cents per gallon for largest quantities of simple products to from 15 to 20 cents, and even more per gallon for small quantities of products difficult to manufacture.

Careful study should be made of each individual product or group of products, and a standard or normal cost should be set for each product or group. This standard should cover the full batch quantity which can be made most efficiently and economically in

the equipment available. It should cover the cost of mixing, grinding, thinning, and shading the product up to the point of filling. There is a great difference in the manufacturing cost of individual products as well as a wide variation in the cost of the same product manufactured in different plants, depending upon the character of the equipment and the quantity produced at one time. At the same time due consideration should be given to the added direct labor and expense incurred when fractional batches are made. Every effort should be made to produce in quantities as large as conditions will permit.

Bulk Cost

The foregoing embraces all expenditures for raw materials used and the complete handling and manufacturing expense, labor, and factory overhead necessary to make the product in bulk, ready for filling the containers. Regardless of the size of package into which the product may be filled for sale, it is obvious that the cost of bulk material is the same for packages of all sizes.

Package and Packaging Cost

This cost represents a large and variable feature of the cost of finished product. A schedule of standard costs for packages of all sizes should be prepared by the manufacturer, based on his own individual experience, covering cost of container, case, etc., and the labor and expense of filling, handling, labeling, packing, etc. All these are required to fill, finish, and warehouse the product and prepare it for shipment to the customer.

In addition to the cost of the container, etc., the experience of many manufacturers indicates that the average labor and expense to handle packages varies from 1 to 2 cents per gallon for 5-gallon pails and 50-gallon drums, and from ½ to 5 cents for smaller packages of ¼ pint to 1-gallon capacity, depending upon the equipment used and the number of packages handled.

Factory Filled Cost

This cost embraces the complete cost of material in bulk, and the additional cost to cover package, etc. Thus it includes all factory expenditure for the product ready for shipment to the trade, as outlined in foregoing cost figuring system.

Full Selling Cost

If financial losses are to be avoided the expenditure incurred in marketing the product must be covered by the selling price. These items of selling and distributing expense, enumerated in the foregoing outline, can be included in the cost most simply by a schedule of percentages providing for different classes of business. Large volume sales or contracts obviously cost less to sell than do small orders.

A careful study indicates that in many companies the selling and distributing expense average about as follows, when compared with the complete factory filled cost or total cost of the product:

	Per Cent of Factory Cost
Bids for large volume business	10 to 15
Contracts for large volume	15 to 20
General industrial business	25 to 30
Trade or Dealer sales	35 to 50

It is recommended that every manufacturer make a careful survey of his own conditions and establish a scale of percentages to cover the expenditure to sell and distribute the product in relation to the complete cost of production. This percentage should be added to factory filled cost to determine the full selling cost, and it should be definitely understood that *no profit* is realized unless the product is sold for a price above this figure.

Selling Price

The selling price of any product should give fullest consideration to the following: (1) complete cost to manufacture, (2) cost to sell and distribute the individual product, (3) volume of business, (4) anticipated profit, (5) value of product to the consumer, (6) competitive prices on comparable product, (7) credit risk of the account, and (8) technical service required by consumer.

Profit

Profit should be considered as a percentage of selling price rather than as a percentage in relation to cost. The amount of the sale is the more tangible, is a logical basis, and is in harmony with the general practice of determining the percentage of selling expense compared with the total of sales.

Certain companies consider profit as a percentage of invested

capital. This basis is satisfactory in determining the final outcome of a business, but such profit results only from proper relation between cost and price of individual products.

From the standpoint of percentage of the sales dollar, general observation indicates that the business of the industry may be broken down as follows:

	Per Cent
Profit	5–10
Selling expense	20–35
Manufacturing expense	5–20
Packages	5–10
Material cost	40–60

Bookkeeping Methods

The bookkeeping methods employed in handling the accounts follow the principles of modern accounting practice.

The General Ledger contains the usual accounts for assets and liabilities, as outlined in the foregoing Chart of Accounts. Subdivision of such accounts is provided as justified by circumstances.

It is imperative that the factory cost system tie in with general books through the factory expense ledger. All charges and credits to factory accounts must clear through this account. Thus the accounts of factory operations can be available to the men responsible without divulging to them data regarding sales, costs, and profits.

Monthly reports rendered promptly at the close of each month include close supervision of the following:

1. *Profit and Loss Statement*
2. *Classified Sales Report* (listing the volume of sales for each important group of products sold to trade and industrial accounts)
3. *Selling Expense Report* (showing the expenditure under captions, as indicated in the outline of cost figuring)
4. *Division and Territorial Sales and Expense Reports* (comprising sales with expenses for control of expense to sales)
5. *Factory Output Report* (listing both quantity and volume of products under captions parallel to sales reports)
6. *Factory Operating Expenses* (comparing production and operating costs of each factory subdivision to determine cost of manufacture per unit of product)

Other reports may be added to assist officials in the supervision of their responsibilities.

ACCOUNTING FOR THE PHOTOENGRAVING INDUSTRY

By

W. B. Lawrence *

Brief Description of Business

Photoengraving is the art of making etched metal printing plates, usually on copper, zinc, brass, etc., for typographic, or letterpress, printing. Parts of the process are also used for the production of printing plates or cylinders used in offset, or photolithographic, and rotogravure printing. The plates used in typographic printing are etched with the design in relief and depend upon contact to transfer ink from plate to paper. Plates used in offset, or photolithographic, printing are planographic and depend upon the lithographic principle of repulsion of grease and water for their printing qualities. Plates used in rotogravure printing are etched intaglio and depend upon the suction principle for their printing qualities.

Commercial photoengraving deals principally with the production of plates for typographic printing, and offset and rotogravure plates constitute only a minor part of its output. The plates made are original, or master, plates which may be used directly in typographic printing or as matrices for the production of duplicate plates by the electrotyping or stereotyping process, which is a separate industry.

Photoengraved plates are of three general types: line etchings, halftones, and color-process engravings. Line etchings are used for the reproduction of copies that consist of lines or solids and that depend upon gradations in thickness of lines for their tonal values. Halftones are used for the reproduction of copies which consist of continuous tones, as photographs or wash drawings, in which it is necessary to break up the continuous tones into dots by means of a halftone screen to secure printing qualities. Color proc-

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ess engravings are used for the reproduction of colored copies in colors and require two, three, or four plates to a set according to the coloring of the copy. The principle of color separation by the use of color filters is combined with the use of the halftone screen to secure plates that will reproduce the colored copy when prints from each plate of the set are superimposed on a sheet of paper in the proper colors of ink and in the proper order.

The photoengraving process consists of seven major steps: (1) photography or negative making, (2) stripping, or negative turning, (3) printing on metal, (4) etching, (5) finishing, (6) routing and blocking, and (7) proofing. In addition there are various minor operations, as Ben Day or tintlaying, which may or may not be required according to the nature of the job in process.

Theory of Accounts

Since all photoengravings are made to order to meet customers' requirements and no two plates are exactly alike, the business is necessarily of the job order instead of the continuous process type. This condition affects the kind of cost-finding and accounting methods that must be used by the industry. Standard costs can seldom be used and have little value in this industry because of the ever-changing nature of production in all its phases.

The Standard Cost System of the American Photo-Engravers Association constitutes the uniform method of cost finding used in the industry. The system is of the job-cost type and follows the all-inclusive department hour-rate plan in general use throughout the graphic arts. A separate cost sheet is used for each job put in production and daily time reports are made by all workers. The time consumed on each order is posted from the time reports to the job-cost sheets. Direct material and purchased parts costs are also posted to them. When the job is completed the cost is figured, using the all-inclusive hour rates of the departments that worked on it for the amount of time expended by them on the job. The all-inclusive hour rates are computed monthly and reduced to average rates covering the latest 12-month period.

The system as described is used by shops with more than five workers. Shops with five or less men use a condensation of the system in which the shop is treated as a single department or production center. Complete instructions for installing and operating the

system are given in the *Manual of the Standard Accounting System*, published by the American Photo-Engravers Association. The manual is furnished only to members of the photoengraving industry.

Accounts Required

Following is a list of the accounts in the general ledger which are recommended as suitable for the photoengraving business. Accounts shown in roman type are necessary while those in italics are optional.

Income

1. Sales, Photoengravings
2. Sales, Color Process Plates
2.1 Time Charge Sales
3. Sales, Art
4. Sales, other than above
5. ....
6. Allowances on Sales
7. Cost of Sales
8. Cost Adjustment
9. Applied Expense
10. Miscellaneous Income

Manufacturing Expenses

11. Outside Purchases Consumed
12. Direct Material Consumed (Copper, Zinc, and Wood)
13. Chemicals and Supplies Consumed
14. Wages, Factory Employees
15. *Wages, Superintendent, and Foremen*
16. Light, Power, Gas, and Water
17. *Rentals and Royalties on Equipment*
18. Rent of Factory
19. Insurance
20. Taxes
21. Depreciation
22. Repairs
29. Miscellaneous Factory Expenses

Selling Expenses

30. Salesmen's Salaries
31. Sales Commissions
32. Sales Traveling Expense
33. Advertising
39. Miscellaneous Selling Expenses

Shipping Expenses

40. Wages, Shipping Force
41. Shipping Supplies
42. Carfare, Express, and Parcel Post
49. Miscellaneous Shipping Expense

Administrative Expense

50. Officers' Salaries
51. Office Salaries
52. Telephone and Telegraph
53. Stationery and Office Supplies
58. Losses on Bad Accounts
59. Miscellaneous Office Expenses
59.1 *Audit Expense*
59.2 *Collection Expense*
59.3 *Dues*
59.4 *Legal Expense*
59.5 *Postage (not for advertising or shipping)*
59.6 ....

Financial Income and Expense

60. Interest Paid
61. Cash Discount Allowed
62. Interest Received
63. Purchase Discount Taken
64. ....
65. ....
66. ....

Current Assets

70. Cash in Bank
71. Petty Cash

72. Accounts Receivable, Customers
73. Accounts Receivable, Other Customers
74. Notes Receivable
75. Reserve for Doubtful Accounts
76. *Purchases, Outside Materials*
77. *Purchases, Copper, Zinc and Wood*
78. *Purchases, Chemicals and Supplies*
79. Unfinished Work
80. Investments

Deferred Charges to Operations

85. Prepaid Insurance
86. Prepaid Rents and Royalties

Fixed Assets

90. Machinery and Equipment
91. Small Tools and Fixtures
92. Office Furniture and Fixtures
93. Automobiles and Motorcycles
94. Reserve for Depreciation

Other Assets

96. Sinking Fund, Social Security Tax
97. Sinking Fund, for Employees' Tax Deductions
98. ....
99. ....

Current Liabilities

100. Accounts Payable
101. Notes Payable
102. Sundry Creditors

Accrued Liabilities

103. Accrued Payroll
104. Accrued Taxes
105. Accrued Social Security Tax
106. Accrued Tax on Employees
107. Accrued Commissions
108. ....

Fixed Liabilities

110. Mortgages Payable
111. ....

Reserves

115. ***Reserve for Contingencies***
116. ***Reserve for Additions***

Proprietorship

(If a corporation)

120. Capital Stock
121. Surplus
122. Profit and Loss

(If a partnership)

120. Partners' Capital
(An Account for each partner)
121. Partners' Drawings
(An account for each partner)
122. Profit and Loss

(If a single proprietorship)

120. Proprietor's Capital
121. Proprietor's Drawings
122. Profit and Loss

In large establishments that maintain a separate sales office, the following accounts should appear on the general ledger:

34. Rent of Sales Office
35. Insurance
36. Taxes
37. Depreciation

Where a large shipping force with separate quarters is maintained, the general ledger should carry the following accounts:

44. Rent of Shipping Room
45. Insurance
46. Taxes
47. Depreciation

Where the general office is sufficiently separated from the plant quarters, the following accounts should be used:

54. Rent of General Office
55. Insurance,
56. Taxes
57. Depreciation

The following accounts require special comment.

Accounts 1, 2, 3, 4; Sales—In this classification the Sales account is divided into four accounts for the purpose of showing the gross amount of different kinds of sales. All sales of photoengravings other than color process plates are credited to account 1, while sales of color process plates are credited to account 2, and art sales to account 3. Other sales, such as electros, printing, photographs, etc., are credited to account 4. This causes the ledger to present classified figures as to sales of various kinds. If desired, a separate account for Time Charge Sales (2.1) may be carried in the ledger. There is no objection to other classifications of the sales accounts provided those used can easily be regrouped to give totals similar to this classification. Thus, Photoengraving Sales (account 1) might be reclassified as Halftone Sales (account 1.1), Line Sales (account 1.2), Ben Day Sales (account 1.3), etc., if desired. Also, Other Sales (account 4) might be regrouped as Electrotype Sales (account 4.1), Printing Sales (account 4.2) etc.

7. *Cost of Sales*—This account is debited monthly with the total cost of sales billed as secured from the total of the cost column of the sales register. Its purpose is to record in one account the total cost of the goods sold as shown by the cost system, and to permit a quick idea of profit or loss to be secured when the books are closed each month.

8 and 9. *Cost Adjustment* and *Applied Expense*—These accounts measure the accuracy with which the cost system is working and show whether or not all expenses are entering into the cost records. The Applied Expense account (9) is credited with the total of all expenses for the month, as shown by accounts 11 to 66. The Cost Adjustment account (8) is debited or credited with the difference between the cost charged to jobs during the month and the actual expense of the month, thus showing how accurately the cost system is being operated.

76, 77, and 78. *Purchases, Outside Materials; Purchases, Copper, Zinc and Wood; Purchases, Chemicals and Supplies*—These accounts are subdivisions of the purchases account usually used. Their purpose is to give a classified record of the kind of purchases made. They are debited with the opening inventory of each class of materials and with all purchase of that class of materials. At the end of each month an inventory is taken and the value of the materials

consumed is credited to the account and debited to the expense account for materials consumed (accounts 11, 12, and 13). The balances represent the inventory values of materials on hand.

79. *Unfinished Work*—This account measures the value of the unfinished work on hand at the end of each month and thus promotes the preparation of a correct statement of profit or loss. It is debited with the total amount of expense credited to Applied Expense (account 9) previously mentioned. It is credited with the cost of sales as debited to Cost of Sales (account 7) from the sales register. The balance of the account is then ascertained and compared with the total cost shown by the unfinished orders on hand, and the difference between the two amounts is secured. This account is then debited or credited, as the case may be, with this difference, the offsetting entry being to Cost Adjustment (account 8). The remaining balance in this account is the inventory value of the unfinished work as shown by the unfinished individual order summaries.

85. *Prepaid Insurance*—This account is intended to spread insurance expense evenly over all months of the year instead of charging the entire amount of such expense in the month in which the insurance is paid. The account is charged with all insurance premiums. It is credited each month with one twelfth of the insurance premiums for the year, the offsetting debits being to account 19, and to accounts 35, 45, and 55, if they are used. The balance of the account is the value of the unused insurance.

86. *Prepaid Rents and Royalties*—This account spreads rentals and royalties on equipment over the different months instead of showing them as an expense of the month in which they are incurred. The account is handled in the same manner as prepaid insurance. The offsetting monthly debit is to account 17. The balance of the account is the value of the unused rental.

91. *Small Tools and Fixtures*—Because of the large number of small tools and fixtures used in photoengraving, with their consequent breakage or loss, it is recommended that these tools be carried in a separate account from larger or more costly equipment. It is suggested that this account be charged with all tools and fixtures which cost less than $25.00, and with all glassware. Equipment costing more than $25.00 would be charged to Machinery and Equipment.

96. *Sinking Fund, Social Security Tax*—It is advisable to maintain a sinking fund to provide funds for meeting payment of social security taxes. This can be accomplished by making periodical deposits in a bank or other depository account separate from the one in which active funds are kept. Weekly or monthly, as the accrued liability for these taxes is determined there should be deposited in the sinking fund an amount equal to the tax liability for the period referred to. The entry is a debit to this account and a credit to cash.

97. *Sinking Fund, for Employees' Tax Deductions*—Under the Federal Social Security Act, the employer is required to deduct from employees' wages a certain specified percentage of the wages earned, and to pay it as a Federal tax upon the employee. This money does not become the property of the employer and should not be intermingled with the employer's funds. A separate bank or other depository account should be opened for this purpose. As deductions are made from employees' wages they should be deposited in this sinking fund and held intact until time to pay the tax. The entry is a debit to this account and a credit to cash.

103. *Accrued Payroll*—This account is intended to overcome the inequalities in monthly expenses which result from charging four or five payrolls in a month, due to variations between the final payday and the end of the month, and to show each month the amount of wages unpaid and not due. Either of two methods may be followed.

a. This account is charged with all payrolls when paid. At the end of the month a journal entry is made, crediting this account and debiting accounts 14, 15, 30, 40, 50 and 51 with the wages earned, including amounts unpaid at the end of the month. The balance of this account will then show the accrued liability for wages unpaid and not due.

b. Payrolls as paid are debited to accounts 14, 15, 30, 40, 50, and 51 and do not appear in this account. At the end of the month the amount of wages earned but not due is ascertained and debited to the above accounts with an offsetting credit to this account. This account then shows the accrued liability while the other accounts show the actual wages of the month under consideration. On the first of the month a reversing entry is made, debiting this account

and crediting the above accounts with the amounts in the previous entry.

Method a is preferable because the Accrued Payroll account carries the full history of wage payments without requiring reference to other accounts, and requires less work than method b. By either method it is necessary to figure the amount of the accrued wages on the payroll book.

Financial Statements

Following are standard forms of financial reports to be taken off the general ledger each month in connection with the operation of the standard accounting system.

Condensed Profit and Loss Statement

Period from ____________ to ____________

1.	Sales, Photoengravings		$_______
2.	Sales, Color Process Plates		_______
2.1	Time Charge Sales		_______
Total Photoengraving Sales			$_______
3.	Sales, Art		_______
4.	Sales, Other than above		_______
10.	Miscellaneous Income		_______
Gross Sales			$_______
6.	Less, Allowances on Sales		_______
Net Sales			$_______
7.	Less, Cost of Goods Sold	$_______	
8.	Less (or add) Cost Adjustment	_______	_______
Net Profit or Loss for Period			$_______

Statement of Manufacturing Expenses

Period from ____________ to ____________

11.	Outside Purchases Consumed	$_______
12.	Direct Material Consumed	_______
13.	Chemicals and Supplies Consumed	_______
14.	Wages, Factory Employees	_______
15.	Wages, Superintendent and Foreman	_______
16.	Light, Power, Gas and Water	_______
17.	Rentals and Royalties on Equipment	_______
18.	Rent of Factory	_______
19.	Insurance	_______
20.	Taxes	_______
21.	Depreciation	_______
22.	Repairs	_______
29.	Miscellaneous Factory Expenses	_______
Total Manufacturing Expenses		$_______

Selling Expenses

Period from ____________ to ____________

30. Salesmen's Salaries		$______
31. Sales Commissions		______
32. Sales Traveling Expense		______
33. Advertising		______
39. Miscellaneous Selling Expense		______
Total Selling Expenses		$______

Administrative and Shipping Expenses

Period from ____________ to ____________

50. Officers' Salaries		$______
51. Office Salaries		______
52. Telephone and Telegraph		______
53. Stationery and Office Supplies		______
58. Losses on Bad Accounts		______
59. Miscellaneous Office Expense		______
Total Administrative Expense		$______
40. Wages Shipping Force	$______	
41. Shipping Supplies	______	
42. Carfare, Express and Parcel Post	______	
49. Miscellaneous Shipping Expense	______	______
Total Administrative and Shipping Expenses		$______

Financial Income and Expense

Period from ____________ to ____________

60. Interest Paid	$______	
61. Cash Discount Allowed	______	$______
Less:		
62. Interest Received	$______	
63. Purchase Discount Taken	______	______
Net Financial Income or Expense		$______

Detailed Profit and Loss Statement

Period from ____________ to ____________

Net Sales as per Report No. 2		$______
Less, Manufacturing Expenses, as per Report No. 3	$______	
Add, Inventory Unfinished Work, Beginning	$______	
Total	$______	
Less, Inventory Unfinished Work, Ending	______	______
Gross Profit on Sales		$______
Less, Selling Expenses, as per Report No. 4		______
Net Profit on Sales		$______
Less, Administrative and Shipping Expenses, as per Report No. 5		______
Net Profit on Operations		$______
Less Financial Expenses, as per Report No. 6		______
Net Profit for Period as Per Report No. 1		$______

Balance Sheet
Date ____________

Current Assets		
70. Cash in Bank	$______	
71. Petty Cash	$______	$______
72. Accounts Receivable, Customers	______	
73. Accounts Receivable, Others	______	
74. Notes Receivable	______	
75. Less, Reserve for Doubtful Accounts ..	$______	______
76. Purchases, Outside Materials	______	
77. Purchases, Copper, Zinc and Wood	______	
78. Purchases, Chemicals and Supplies	______	______
79. Unfinished Work		______
80. Investments		______
85. Prepaid Insurance		______
86. Prepaid Rents and Royalties		______
Total Current Assets		$______
Fixed Assets:		
90. Machinery and Equipment	$______	
91. Small Tools and Fixtures	______	
92. Office Furniture and Fixtures	______	
93. Automobile and Motorcycles	______	
Total Fixed Assets Before Depreciation	$______	
94. Less, Reserve for Depreciation	______	______
Total Assets		$______

Liabilities and Net Worth

Current Liabilities		
100. Accounts Payable	$______	
101. Notes Payable	______	
102. Sundry Creditors	______	
103. Accrued Payroll	______	
104. Accrued Taxes	______	
107. Accrued Commissions	______	$______
Accrued Taxes, Less Sinking Funds:		
105. Accrued Social Security Tax	$______	
106. Accrued Tax on Employees	______	
Total	$______	
Less, 96. Sinking Fund, Social Security Tax	______	
97. Sinking Fund for Employees Tax Deductions	$______	______
Fixed Liabilities		
110. Mortgages Payable		$______
Total Liabilities		$______

RESERVES, CAPITAL AND SURPLUS			
115. Reserve for Contingencies		$	
116. Reserve for Additions			$
120. Capital Stock		$	
121. Surplus	$		
122. Profit and Loss			
Profit for Period, as per Report No. 2			
TOTAL LIABILITIES AND NET WORTH			$

BOOKKEEPING RECORDS

The books and records necessary to secure a complete record of business transactions, apart from cost records, are: general ledger, accounts receivable ledger, accounts payable ledger, order book, bill and duplicate sales sheet, sales register, cash book, petty cash, payroll book, and journal. Following is a brief discussion of the purposes and users of some of these records:

The General Ledger contains all accounts relating to the business except individual accounts with customers and purchase creditors, for which controlling accounts only are carried.

The Accounts Receivable Ledger contains all accounts with customers, there being a separate account with each customer.

The Accounts Payable Ledger contains all accounts with trade creditors. When a voucher system is used, of course, the accounts payable ledger is not needed.

The Order Book contains all orders received. It is intended to prevent failure to charge for work done and to give a complete list of all orders received. An ordinary daybook will answer for the purpose provided it is arranged with columns for date received, order number, customer's name, and date billed. Each order is given a number and entered when it is received and the date it is billed is entered when billing is done. Examination of this book will disclose any orders that have not been billed. In large shops two books for use on alternate days may be used.

The Bill and Duplicate Sales Sheet is made out in duplicate, the duplicate being a sheet punched for a loose-leaf binder. The bill is sent to the customer, and the duplicate is placed in the sales register. It is well for the duplicate to have spaces which show the kind of sales covered by the bill, as zinc etchings, square halftones, Ben Day work, etc.

The Sales Register may be either a loose-leaf post binder or a columnar ruled book. If the former the duplicate sales sheets are placed in the binder each day, so that it is a complete record of sales billed. A top sheet summarizes the sales so that the total may be known at any time. The top sheet should have about thirty-two lines, one for each day of the month and for a monthly total. It should have a number of columns; one for the date, one for each class of sales, one for daily total sales, and one for cost of sales. Each day the sales sheets for the day are totaled and entered on the top sheet. The totals of the columns for the month give the details of sales, the total sales for the month, and the cost of the sales. If a columnar ruled book is used, each sale should be entered on a separate line and a distribution should be made to the different columns listed above.

The Payroll Book contains monthly individual payroll sheets for each employee with a summary sheet for each month. The payroll sheets should be arranged to show all information required for social security and unemployment compensation purposes. They should also provide for classification of wages by departments and for chargeable and nonchargeable wages in each department for cost system purposes.

ACCOUNTING FOR PHYSICIANS AND SURGEONS

By

R. Randall Linney*

Brief Description of Business

A physician's or a surgeon's business consists of selling and accounting for personal services and also accounting for investments or other business interests. These investments may go from one extreme to the other: on one hand, interest may be in a hospital, whereas on the other, the interest may be in a ranch or in a gasoline station.

All men or women in this profession will practice medicine as one of two types of business: either as an individual proprietorship or as a partnership with other members of their profession. The accounting for either type will be the same except for the capital or ownership accounts.

A physician's or surgeon's income will come from:

1. Fees from professional services for patients.
2. Income from teaching in a medical school.
3. Income from administrative duties on the staffs of hospitals.
4. Fees from other physicians for consultations or services.
5. Other income received from various sources such as federal and municipal services.

Theory of Accounts

Physicians or surgeons may follow either the cash method of accounting or the accrual method of accounting. The cash method seems to be the most widely adopted at the present time.

The cash method is the type of accounting wherein no income is considered to be earned until it is actually collected, and expenses have not been incurred until paid. In the accrual method, the income is recorded as earned when the services have been performed whether paid for or not. In a like manner, expenses are considered as having been incurred when the liability actually has arisen, whether it has been paid or not. For example: When a physician

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on a cash basis performs an appendectomy, he assumes he has NO income until the professional fee has been received. On the other hand, when a physician using the accrual method of accounting performs an appendectomy, he has earned the income and records the fee as income before the money has been received.

There are certain advantages for each method of accounting. The advantages of the cash method are:

1. Simplicity and reduction in bookkeeping costs.
2. No anticipation of income which will not be collected.

The advantages of the accrual method are:

1. Income and expenses are recorded when earned and the liability is incurred; therefore, there are more accurate statements of income and expense.
2. Adequate records are maintained in contrast to the cash method wherein there is sometimes a tendency not to keep records.

If the cash method is used, there is no formal record incorporated within the books of the Accounts Receivable or the fees for services which have been performed but have not been collected. A record of these fees is generally kept on the patient's medical record card. This necessitates compiling the balances due from each individual card and totaling them for a financial statement memorandum figure to present the actual fees earned for the period under consideration. Most doctors are one month behind on their income under the cash basis, and many doctors unknowingly are several months behind in their services rendered. For instance, practically all of the services performed by a doctor in the last half of November and all of December are not considered as income until the next year when collected in January or February.

Under the accrual method of accounting, the accounts receivable are a part of the formal set of records. This necessitates, however, the account of the Allowance for Bad Debts. This account represents a reduction of the accounts receivable with an allowance for the money which will not be received. The allowance is established by estimating a certain percentage of the total accounts receivable. For example: a physician has total accounts receivable of $5,000.00. Based on past experience only 95% of the total will be collected; therefore, his allowance for bad debts is $250.00.

In accounting for a physician or surgeon, the investments may be incorporated within the set of books pertaining to the medical practice; however, if the investments are active businesses, it is generally best to keep separate sets of books.

The capital or proprietorship accounts will differ depending on the type of business organization. For an individual there will be only one capital account. In a partnership, each partner will have a capital account representing his ownership or obligation to the partnership.

Accounts Required

The ordinary accounts required are as follows:

Balance Sheet Accounts

100	Cash in Bank
101	Petty Cash
110	Accounts Receivable (memo)—See "Theory of Accounts"
110A	Allowance for Bad Debts
115	Notes Receivable (memo)
120	Marketable Securities and Investments
150	Medical Equipment
150A	Allowance for Depreciation—Medical Equipment
155	Furniture and Fixtures
155A	Allowance for Depreciation—Furniture and Fixtures
160	Automobile
160A	Allowance for Depreciation—Automobile
170	Library
170A	Allowance for Depreciation—Library
180	Other Investments and Other Assets
210	Accounts Payable (memo)
212	Payroll Taxes Payable
215	Notes Payable
220	Other Liabilities
300	Capital—Beginning of Year
330	Profit for Year to Date
390	Drawings for Year to Date

Income and Expense Accounts

400	Fees Collected from Patients (total)	
	400.1	Office Calls by Patients
	400.2	Operations
	400.3	Hospital Calls for Patients
	400.4	House Calls for Patients
410	Other Income	
500	Office Expenses (total)	
	500.1	Clerical and Laboratory Salaries
	500.2	Payroll Taxes
	500.3	Drugs and Medical Supplies
	500.4	Laundry
	500.5	Rent or Building Expense
	500.6	Office Supplies
	500.7	Telephone
	500.8	Dues and Periodicals
	500.9	Accounting and Legal Fees

510 Automobile Expense (total)
- 510.1 Gasoline and Oil
- 510.2 Repairs and Maintenance
- 510.3 Insurance
- 510.4 Depreciation—Automobile
- 510.5 License
- 510.6 Garage or Storage

520 General Expense
- 520.1 Assistant Doctor Fees
- 520.2 Travel and Convention
- 520.3 Insurance
- 520.4 Business Promotion
- 520.5 Contributions
- 520.6 Depreciation—Equipment and Library

Operating Statements

Statement of Income and Expense

Fee Collected		
Office Calls by Patients		$xx xxx.xx
Operations		x xxx.xx
Hospital Calls for Patients		x xxx.xx
House Calls for Patients		xxx.xx
Other Income		x xxx.xx
Total Fees		$xx xxx.xx
Less: Expenses		
Office Expenses		
Clerical and Laboratory Salaries	$x xxx.xx	
Payroll Taxes	xxx.xx	
Drugs and Medical Supplies	x xxx.xx	
Laundry	xxx.xx	
Rent or Building Expense	x xxx.xx	
Office Supplies	xxx.xx	
Telephone	xxx.xx	
Dues and Periodicals	xxx.xx	
Accounting and Legal Fees	xxx.xx	
Total Office Expenses		x xxx.xx
Automobile Expense		
Gasoline and Oil	$x xxx.xx	
Repairs and Maintenance	x xxx.xx	
Insurance	xxx.xx	
Depreciation—Automobile	xxx.xx	
License	xx.xx	
Garage or Storage	xxx.xx	
Total Automobile Expense		x xxx.xx
General Expense		
Assistant Doctor Fees	$x xxx.xx	
Travel and Convention	x xxx.xx	
Insurance	xxx.xx	
Business Promotion	x xxx.xx	

Contributions	x xxx.xx	
Depreciation—Equipment and Library	xxx.xx	
Total General Expense		x xxx.xx
Total Expenses		$xx xxx.xx
NET PROFIT		$xx xxx.xx

BALANCE SHEET

ASSETS

Cash in Bank			$xx xxx.xx
Petty Cash			xx.xx
Marketable Securities			x xxx.xx
Accounts Receivable (memo)	xxx.xx Non Add		
Notes Receivable (memo)	xxx.xx Non Add		
Medical Equipment		$x xxx.xx	
Less: Allowance for Depreciation		x xxx.xx	x xxx.xx
Furniture and Fixtures		$x xxx.xx	
Less: Allowance for Depreciation		xxx.xx	x xxx.xx
Automobile		$x xxx.xx	
Less: Allowance for Depreciation		xxx.xx	x xxx.xx
Library		$x xxx.xx	
Less: Allowance for Depreciation		xxx.xx	x xxx.xx
Investments			x xxx.xx
TOTAL ASSETS			$xx xxx.xx

LIABILITIES AND CAPITAL

Liabilities			
Accounts Payable (memo)	xxx.xx Non Add		
Payroll Taxes Payable			$ xxx.xx
Notes Payable			x xxx.xx
Total Liabilities			$x xxx.xx
Capital			
Capital—Beginning of Year		$x xxx.xx	
Profit for year to date		x xxx.xx	
Less: Drawings for Year to Date		(x xxx.xx)	
Total Capital			$x xxx.xx
TOTAL CAPITAL AND LIABILITIES			$xx xxx.xx
Memorandum:			
Estimated Income Taxes to Date		$x xxx.xx	
Less: Estimates Paid to Date		x xxx.xx	
Estimated Income Taxes Not Paid		xxx.xx	

BOOKKEEPING METHODS

The accounting records of the physician or surgeon would consist of the following:

The General Ledger which contains the asset, liability, capital, income, and expense accounts necessary for the preparation of financial statements.

A Journal for recording the daily or weekly transactions.

A Cashbook to record the cash and checks received and deposited in the bank.

Accounts Receivable Ledger to record the amounts receivable and amounts paid by patients. This may be kept on the medical history card.

A Daybook prepared by the doctor, of services performed and the fees charged for the services. This is a book of original entry.

Financial statements consisting of a Balance Sheet and Profit and Loss Statement are prepared monthly or quarterly.

Entries in the records and postings to the general ledger are made in accordance with customary bookkeeping procedure.

ACCOUNTING FOR THE PRINTING INDUSTRY

By

J. K. Lasser*

Brief Description of Business

Printing is a process that reproduces from raised or depressed surfaces upon various materials—usually paper.

A printing establishment is sometimes equipped to turn out a completed job. It may set type, do presswork, folding, binding, and stitching. It may even prepare the result for mailing and delivery of the completed job to customers or to other sources. Some plants also operate a foundry, making electrotypes or stereotypes, for use on long runs or certain types of presses. Others have special units and equipment developed by the industry for individual jobs or types of work. A few plants even maintain photoengraving departments. Some contract for all of their supplies. Most large plants maintain skilled machinists and electricians for repair and overhaul work.

The work performed by the different plants varies. Many are job shops. They handle single orders for customers—or are equipped to perform only one or two functions in the total preparation of a printed job. From there on, the diversification continues until the ultimate is reached—a large newspaper plant devoted to a single daily. In between are plants doing specialized work (ticket printing, for instance), those seeking publication printing, book printing, and so on.

Theory of Accounts

The fundamental requirement of an accounting system for a printer is to ascertain his cost and billings—and to get adequate control of operations. The ordinary printing plant is a combination of departments, each of which does a part of the job. The

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parts may range from a simple hand operation to the use of complex automatic equipment. The work handled is often varied—two orders are seldom similar. Some departments operate continuously; others operate intermittently. Labor varies with each function from pieceworkers to high-priced journeymen running automatic equipment. The business is often seasonal. Production may be near capacity in some departments while practically at a standstill in others.

Under such conditions, proper management can often only be secured by accounting controls that identify the productivity, profit, or loss for each job—as well as that of each department and the plant as a whole. So costing often attempts to reveal abnormal deviations from established standard of production. It seeks constant analysis to measure output in terms of man or machine hours. All of these figures are continuously secured and tied into the accounting controls.

In general, the executive requires the following information as a guide to both successful management and sales policies.

1. A profit and loss statement showing in detail the income and functional expenses of the operation.

2. Monthly departmental segregation of operating costs and sales of the plant so as to depict at least—

   The hourly cost of operating *each center*—segregated by labor, direct, fixed and overhead costs.

   The profit and loss in the operation of each center or division.

   Percentage of productivity in each center.

3. Detailed costs and billings of completed jobs as compared with estimates. (Costs are secured by extending time consumed in each center at the average hourly production center rates.)

4. Analysis of cost and sales by types of work or customers. (This is an analysis of the completed jobs.)

5. Daily and monthly summary of production by departments (each machine and hand operation) in order to permit measurement against standards.

Most important in the printing plant accounting is the mechanics of the costing. To do that the following steps are usually found in most plants—

1. The plant is divided into machine and hand-operated production centers. That usually means division of the plant into sections that will permit the cost (operating each type of machine; or hand work of various classes) to be readily assembled.

2. Then, costs of operating the plant are allocated to these machine or hand centers. The industry has adopted practices that are uniformly used to make certain that this allocation will be practical. For example, the exact

rent cost in composing room is spread there to the various types of machines, or the various types of hand work found in the composing room.

3. Now comes finding hour cost rates for the machine or hand center. To do that, job tickets of the labor force are analyzed to find chargeable and nonchargeable work. The former, divided into the cost of operating each machine or hand center, gives the productive hourly rate for that center.

Out of this analysis comes a great deal of additional information of use to management—for example, ratio of the productive and chargeable time to the wasted time. That helps to uncover plant errors, machine defects, faulty performances, so much else. And out of this analysis, of course, comes the hourly rate that will be used to find the cost of performing individual jobs. The rate found in each center, times the productive hours devoted to jobs, then gives the cost of the job in each center. The summary of the costs in all centers gives (when materials and outside service costs are added) the full cost of a particular job. From this hourly cost also comes the basis for arriving at the work in process inventory value.

Typical Operating Statement

Here is a typical operating statement of a plant with several departments—those devoted to composition, foundry operations, presswork, and binding. In it you will find: the type of accounts used in the plant; a *briefing* of the method in which these are segregated to departments.

Form of Operating Statement

Income	Composition	Foundry	Presswork	Bindery	Total
Net sales to customers	$	$	$	$	$
Own work					
	$	$	$	$	$
Inventory adjustment					
	$	$	$	$	$
Material and Outside Purchases Sold					
Outside services (for resale)	$	$	$	$	$
Foundry material					
Ink					
Paper					
Binding material and cartons					
Freight and cartage (charged to customers)					
	$	$	$	$	$

PLANT COSTS					
Labor and Related Expenses					
Productive—Wages	$	$	$	$	$
Indirect—Wages					
Supervisory—Wages					
Social Security cost					
Insurance costs					
	$	$	$	$	$
Operating Expense					
Light, power and gas	$	$	$	$	$
Supplies					
Repairs					
Spoilage					
	$	$	$	$	$
Fixed Expenses					
Rent and heat	$	$	$	$	$
Depreciation and metal waste					
Moving and leasehold improvements					
Fire insurance					
	$	$	$	$	$
Administrative Expense					
Salaries, Executive	$	$	$	$	$
Salaries, Office					
Other Costs					
	$	$	$	$	$
Selling Expense					
Salaries and commissions	$	$	$	$	$
Promotion					
Other costs					
	$	$	$	$	$
Total Cost	$	$	$	$	$
PROFIT OR LOSS	$	$	$	$	$
OTHER INCOME					
OTHER COSTS					
Cash Discounts to Customers					
NET PROFIT OR LOSS					$

EXPLANATION OF ACCOUNTS USED

In the main, the accounts briefed in the statement just used are self-explanatory. Some points might be made to indicate current practice in current accounting for the industry.

Sales to customers are segregated to *each division.* Interdepartmental sales transfers are eliminated. Work purchased outside is to be included in the division handling the related operation.

Own work include works produced in the plant for own use, with a charge against the proper departmental expense.

Inventory adjustment is the difference between the value of the work in process, *excluding material* at the beginning and end of the year.

Material and outside purchases is the cost of these required by the sales above. We normally include only such costs as: outside purchases of composition, plates, presswork or binding; foundry material; ink; paper; binding material (cartons—cloth, boards, headbands, lining paper, gold leaf, glassine); freight, cartage and postage—if chargeable to the customer. We normally show the total costs of the items *used* on jobs which have been billed and included in sales. This comes by adjusting purchases of all these materials and services for the inventories at the beginning and end of the year.

Labor costs are separated into many different accounts. The normal process assembles this way—

Productive wages—includes the cost of all crews assigned to equipment or doing hand work of a productive or nonproductive nature on the job in each of the four departments—whether or not the equipment is running or down. Overtime premiums, holidays, vacations, pensions, and all other fringe costs for this labor group should be included.

Indirect wages—includes all *general plant* labor not considered part of the crew complement in the above productive labor group. It includes general help, wash up, porters, cut boys, stock handlers, etc. It includes, too, machinists and electricians concerned with repairs and maintenance of equipment for each department. Wages of those engaged in building or erecting new equipment should be excluded. Overtime, holiday, vacation, pension—all other fringe costs are included. Building employees are properly part of building costs and should be allocated to "rent."

Supervisory—includes the cost of foremen, clerks, and timekeepers in each department.

Other costs related to labor cover social security and unemployment costs—the State disability insurance, compensation and group insurance. Both cover all these costs incurred by the labor above.

Supplies include proof paper, wiping rags, cleaning fluids, tympan paper, rollers, sewing machine needles, shipping supplies—or anything else not normally charged directly to the job.

Repairs include *only* the costs of machine and electrical materials and the parts purchased—other than the amounts capitalized—plus the disbursements for maintenance work. Labor costs for services performed by one's own employees is included in "indirect wages above."

Spoilage is the cost of defective work produced by the plant.

Rent and heat include all expenses incurred in connection with the use of buildings and warehouses. For those owning or operating their plant buildings, it includes the cost of occupancy—items such as wages, and insurance on them, real estate or other property taxes, fuel, repairs, supplies, depreciation and interest on mortgages.

Depreciation and metal waste include the depreciation or other setup for plant machinery, equipment and metal usage. Depreciation on buildings should be included in the preceding account.

Moving and leasehold improvements include any amortized portion of costs incurred in relocating equipment or improvements on leased property.

Fire insurance includes the cost of premiums for insurance only *on plant* equipment and inventories.

Administrative expense includes the expenses connected with all other administrative functions. We normally bulk these into three simple figures: salaries—all top executives; salaries—office people of all classes; all other costs. We put in the first two the full pay—salaries, pension allowances, overtime—plus all other direct or indirect or fringe payments. We include in *other costs* the following type of expenses: telephone and telegraph; business associations and dues; office costs; taxes—other than income or excess profits; social security costs for this part of the payroll; professional expenses.

Selling expense includes salaries and commission of salesmen in the same way as we ask for those of the administrative group; all advertising and promotion costs; all other costs—travel and entertainment, all office expense, social security taxes for this group, telephone, telegraph, etc. Definite segregation of costs should be made between administrative and selling.

Other income and costs include miscellaneous or financial income and costs—accumulated and netted in this category. The major items included are: cash discounts on purchases; interest on dividends; sale of waste; interest paid out for any reason.

Cash discounts to customers are the discounts allowed for early payment of invoices. Discounts allowed customers (a reduction in price) are not to be included here. They reduce sales income.

Account Classification

The typical operating statement given on the prior page shows very briefly the setup of accounts needed. We might, of course, have a great many more accounts in individual plants—based upon management needs. For example, management may well want accounts for—

Divisions of the sales into the types of customers—for example, publication printing; job printing, etc.

Analysis of each type of the sales to show the gross billings, the allowances and all other types of adjustments.

Far greater division of the expense items than we have listed.

Setting up account classifications is simple. We might use—

Number	*To include*
101–199	All of the income accounts and all the adjustments to the income—with such analysis as management needs
201–299	*Cost of all the materials* purchased on the outside—and the cost of outside purchases for each department
301–399	*Labor and related expenses* of each department—divided into the accounts and departments shown in our operating statement
401–499	*Plant operating accounts* shown in our statement—or in much greater detail—perhaps one account for each of the natural plant divisions or departments
501–599	*Fixed expense accounts*—listed in our typical operating statement—or accounts as required in much greater detail—setting up accounts for each division of the plant
601–699	*Administrative accounts*—Provision is normally made for allocation of these to the natural departments of the plant
701–799	*Selling expenses*—set up against each of the natural divisions of the plant if management seeks that control—or bulked, and then allocated. Accounts needed vary considerably. Our statement bulks these. Many more may be needed
801–899	*All the other sources of income* and other items of deductions that we have listed in our explanation of the accounts. Management will want these carefully detailed in the records
901–999	*Balance sheet accounts*

Balance Sheet

The balance sheet of a printing establishment contains the normal assets, deferrals, accruals, liabilities, capital, and surplus generally associated with any manufacturing endeavor. Work in process is normally valued at so-called average hour costs developed for each cost center. Costs include a proportionate share of the overhead burden. Overhead of a printing concern is normally concerned with the planning, ordering of material, follow-up, and

production of the finished product. It is therefore considered proper to include overhead costs in determining inventory values.

Balance Sheet

Assets

Current
- Cash
- Notes Receivable
- Accounts Receivable
  - *Less:* Provisions for Bad Debts
- Inventories
  - Finished Work
  - Work in Process
  - Materials and Supplies
  - Prepaid Expenses

Other Assets
- Compensation Insurance Deposit
- Deferred Costs

Fixed Assets
- Land
- Building and Equipment
- Machinery and Equipment
- Type and Metal
- Delivery Equipment
- Furniture and Fixtures

(Building and Equipment through Furniture and Fixtures: Less applicable reserves)

Liabilities and Capital

Current
- Notes Payable to Bank
- Notes Payable for Machinery (payable within one year)
- Accounts Payable
- Taxes Accrued
- Other Accruals

Deferred Liabilities

Capital Stock

Surplus

Bookkeeping Methods

Printing plants maintain the usual books of original entry: cash receipts, cash disbursements, voucher register, sales and cost analysis register, and journal.

The bookkeeping routine is handled in the usual manner acceptable in good accounting practice. The information recorded in the sales register is peculiar to the industry. It is an analysis of the billings and costs accumulated by customer classifications which may be further segregated by departmental functions if desired. The entries may be secured from duplicate copies of the invoice and the summary cost sheet.

In addition to the books of original entry the following ledgers and supplementary records are generally included in the bookkeeping system:

The General and Expense Ledger contains a record of assets, liabilities, capital, surplus, income, and expense, and the controlling accounts of supporting records. Where the operation is of sufficient size, subsidiary ledgers containing the detailed expenses may be maintained to facilitate handling.

The Accounts Receivable may be kept either in the form of a ledger record or may take the form of duplicate copies of invoices, showing open balances of customers.

The Equipment Register maintains a detailed record of the cost of each piece of equipment, date of purchase, and basis for depreciation. This record may also show the annual and accumulated depreciation charged to operation and major overhaul or replacement costs of various parts. It serves as an insurance record and substantiates losses for tax purposes incurred through the sale or junking of equipment not fully depreciated.

Payroll Records contain summary records for each employee and are compiled daily and accumulated on a weekly and monthly basis to secure the payroll distribution to cost centers. The record also serves as a basis for calculating the payroll accruals each month. All information required by the wage and hour and social security laws are recorded here.

The Departmental Analysis Record supplements the expense ledger. It assembles all operating costs (except those charged directly to jobs). These are distributed each month to the center incurring the expense—by an analysis of the expense vouchers and payroll records. The method of distribution of various fixed expenses was described earlier. This record also contains the productive hours of each center. They are accumulated for the same period as the costs. All-inclusive hour costs are computed by dividing the center cost by the productive hours produced.

Material consumed in the period by jobs is determined from requisitions and recorded by a journal entry charge to the expense account and a credit to the inventory. This material is recorded on the job summary cost sheet and is considered in process until the job is billed. Payroll accruals are calculated from the individual employees payroll record and journalized. Work in process is secured by adding all productive hours in each center that have not been billed and extending them at the costing rate.

ACCOUNTING FOR PRIVATE HOSPITALS

By
FREDERICK CEZER *

DESCRIPTION OF THE BUSINESS

Private hospitals, unlike public or charitable institutions, are capitalized organizations which conduct their activities for the profit and convenience of the association. They are owned and managed by businessmen or groups of businessmen or by practicing physicians, but in all cases the active management of the enterprise is in closest collaboration with a group of physicians, whether the latter own a financial interest in the organization or not.

The peculiarity of the separation of ownership and management is made necessary by virtue of the nature of the professional services that the hospital performs and because of the existing health laws which govern the activities of the hospital. While health laws differ from place to place, in general, they have these essential features in common:

1. All private hospitals must be registered and licensed by the local authority having such jurisdiction.
2. All medical or surgical care may be administered only by a qualified physician.
3. All nursing care must be under the supervisioon of a registered nurse or other qualified supervisor.
4. All private hospitals must be equipped to perform their functions according to the minimum standards set forth in the laws.

Private hospitals which are organized to render hospitalization to patients suffering from any type of disorder or disease are commonly known as general hospitals; those admitting cases of only particular types of diseases are commonly called specialized hospitals. While public or semipublic institutions are divided into similar categories, they differ from private hospitals tc the extent that the latter do not accept "charity" cases nor maintain outpatient departments or clinics; that they are capitalized and not endowed; and that they are not tax exempt, and receive no public funds for their support or maintenance.

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A patient is admitted upon the order of an attending physician either by prearrangement or through emergency. He is brought to a room, either private or semiprivate, in the particular department which is devoted to the treatment of his ailment. Charges then are made to his account for his "board and maintenance"; preliminary laboratory tests are made for purposes of determining the necessity for special diet, treatment and diagnosis, and charges made therefor. If surgical treatment is necessary, his account is charged with operating room and anesthesia fees. Certain drugs, supplies and dressings, as well as X-ray therapy, X-ray diagnosis, oxygen administration, radium therapy, telephone services, special nurses' maintenance, and meals for guests are usually made the subject for extra charges. Some hospitals, however, operate on a flat rate basis which includes in the per diem rate privilege for nearly all of the common forms of services.

It is generally customary that payment by the patient be made in advance, although this rule is sometimes flexibly followed. Moreover, with the expansion in recent years of many group plans of health insurance, patients entitled to benefits under such plans are admitted without advance payment upon presentation of proper evidence of being covered by insurance. The patient, however, is admitted subject to verification of the evidence, and if for any reason, no benefits are available to the patient, the account is treated as a noninsured patient and payment of charges is accordingly requested.

While the patient is in the care of the hospital, use is made not only of fixed equipment, but also of linen, supplies, and drugs. Linen and supplies are requisitioned from the proper stores keeper. When prescriptions must be compounded, a prescription form is used which is filled by a pharmacist. Special supplies or special equipment, not on hand, must be obtained from outside sources by order. When the attending physician so orders, the patient is discharged and his account becomes inactive.

Theory of Accounts

In the hospital, the production unit is the care of a single patient through a single day. This is referred to as the "patient day." The care of the patient may take him through various departments in the hospital which determines each department's income and ex-

penses. For practical purposes, and largely because of custom, only disbursements directly connected with the operation of a department are charged to it.

While differences may occur in the management of different hospitals, they follow the general pattern of departmentalization which appears in the following chart.

The chart illustrates four principles:

1. The many departments through which revenue is earned in a private hospital, makes basic the clear separation of such departments in the accounts.
2. The unit of cost in each department is the patient day.
3. As a statistical guide to the management, the costs in the kitchen are compared on the basis of cost per meal served.
4. Expenses which are not directly attributable to the cost of operating a single department are chargeable to appropriate accounts in the general group composing general overhead.

By following this method, the results of operations will be reflected in two general groups of accounts:

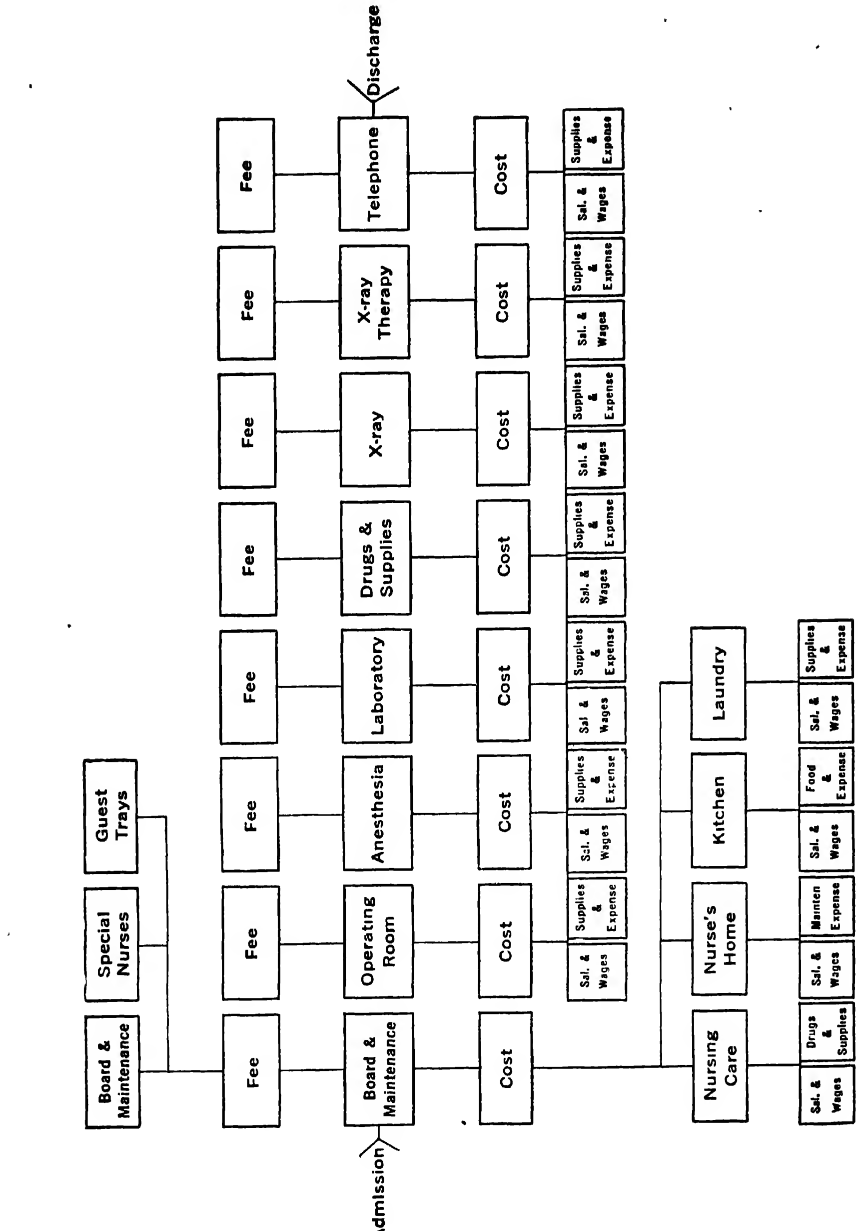
1. Revenue
   a. Departmental
   b. Other income
2. Expenses and Costs
   a. Departmental
   b. General hospital overhead
   c. Publicity and research
   d. Administration and clerical
   e. Other deductions from income

In some hospitals proration of hospital overhead among the various departments is practiced. In such cases, distribution is made on an equitable basis, taking into consideration the character of the overhead expense and circumstances relating to the operation of the department.

Accounts Required

The accounts required in a private hospital to reflect the departmental nature of its operations, may be divided as follows:

1. Board and Maintenance
   a. Kitchen
      (1) Food—separated into most important classifications, such as meat and fish, groceries, dairy products and eggs, vegetables, bread, beverages
      (2) Kitchen salaries and wages
      (3) Gas and fuel (where separately chargeable)


Admission
Discharge
Board & Maintenance
Special Nurses
Guest Trays
Fee
Board & Maintenance
Operating Room
Anesthesia
Laboratory
Drugs & Supplies
X-ray
X-ray Therapy
Telephone
Cost
Sal. & Wages
Supplies & Expense
Nursing Care
Nurse's Home
Kitchen
Laundry
Drugs & Supplies
Mainten Expense
Food & Expense

b. Nursing Care
   (1) Nurses' salaries and wages
   (2) Drugs and supplies, including only such drugs and supplies as are not chargeable to patients
   (3) Maintenance of Nurses' Home—further subdivided according to rent or fixed charges where the nurses' home is owned, light and heat, telephone, etc.

c. Laundry and Linens
   (1) Laundry salaries and wages
   (2) Laundry supplies, including soaps, powders, etc.
   (3) Light and power (where separately maintained)
   (4) Machinery repairs and maintenance
   (5) Linens, gowns, and uniforms. These may be charged on a depreciation or inventory basis depending on the results of observation of past experience

2. Operating Room
   a. Operating Room Salaries and Wages
   b. Drugs and Supplies
   c. Instruments. While instruments may physically have a long period of useful existence, renewals are constantly necessary, more through obsolescence than depreciation. Improved equipment is constantly being produced and purchased to satisfy the demands of the individual techniques of surgeons. It is advisable, therefore, that this type of expenditure be either written off immediately to expense or depreciated at a high rate
   d. Equipment repair and maintenance

3. Anesthesia
   a. Salaries and wages of anesthetists
   b. Anesthetics and supplies

4. Laboratory
   a. Laboratory salaries and wages
   b. Outside laboratory costs, where special laboratory services are obtained outside of the hospital
   c. Supplies and expenses

5. Drugs and Supplies
   a. Pharmacists' salaries
   b. Special prescriptions, oxygen, compressed gases, etc.
   c. Cost of drugs and supplies. These represent cost of requisitioned drugs chargeable to patients out of inventories maintained for this purpose
   d. Drug department expenses. These include supplies, bottles, labels, etc.

6. X-ray Department
   a. Technicians' and assistants' salaries
   b. Films and supplies
   c. Power and light. Unless cricumstances make it impossible, electric power supplied to this department should be metered individually because of the disproportionate amount of power the equipment consumes

7. X-ray and Radium Therapy
   a. Technicians' and assistants' salaries
   b. Power and supplies
      Note: In many hospitals X-ray (radiography) and X-ray therapy departments are combined into one department, mainly because the same personnel is employed for both types of work
8. Telephone
   a. Switchboard operators' salaries. This is generally a proration of the total of salaries paid switchboard operators
   b. Telephone charges. Actual costs of telephone calls made by patients.
      Note: The costs of operating this department are entirely made up from analyzing charges which are never separately invoiced by creditors
9. General Hospital Overhead
   a. Porters, cleaners, elevator operators, house superintendent's salaries, and wages
   b. Repairs and maintenance, including alarm service, elevator maintenance and inspection, hardware, house supplies, soaps and cleaners, plumbing and electrical repairs and painting
   c. Light and power
   d. Coal and fuel and water
   e. Rent or house fixed charges, equivalent to rent
   f. Depreciation
10. Publicity and Research
    a. Hospital Medical Society meetings including photographs, printing, slides and films
    b. Subscriptions to publications and books, and advertisements
    c. Research assistants' salaries
    d. Research laboratory supplies, etc.
11. Administration and Clerical
    a. Salaries and Wages. These include clerks, bookkeepers, and cashiers, purchasing agents, and hospital superintendents
    b. Telephone, including portion of telephone charges and switchboard operators' salaries and wages
    c. Office supplies and stationery
    d. Professional fees—legal and accounting, collection charges, etc.
    e. Insurance
    f. Taxes, other than real estate taxes, including social security, gross receipts taxes, etc.
12. Other Deductions from Income, including loss and expenses of extraneous nature, such as bad debts.

To demonstrate the method of expense distribution and the possibilities of classification, the following chart of accounts has been prepared, listing the accounts in the order of their importance:

Name of Account	Board & Maintenance	Operating Room	Anesthesia	Laboratory	Drugs and Supp	X Ray	X-ray Therapy	Telephone	Gen Hosp. Overhead	Publicity and Research	Admin. and Clerical
0. Revenue	A100*	B100	C100	D100	E100	F100	G100	H100			
1. Salaries and Wages—Physicians	A101	B101	C101			F101	G101			301	
2. Salaries and Wages—Nurses	A102	B102									
3. Salaries and Wages—Pharmacists					E103						
4. Salaries and Wages—Technicians				D104		F104	G104			304	
5. Salaries and Wages—House	A105								205		
6. Salaries and Wages—Laundry	A106	B106									
7. Salaries and Wages—Kitchen	A107										
8. Salaries and Wages—Clerical and Office								H108			408
9. Food—Meat and Fish	A109										
10. Food—Groceries	A110										
11. Food—Vegetables	A111										
12. Food—Dairy Products	A112										
13. Food—Bread	A113										
14. Food—Beverages	A114										
15. Nurses Home—Rent	A115										
16. Nurses Home—Light and Heat	A116										
17. Nurses Home—Other Expense	A117										
18. Drugs and Supplies	A118	B118	C118	D118	E118	F118	G118				
19. Power and Light									219		
20. Coal and Fuel	A120								220		
21. Telephone Expense								G121			421
22. Stationery and Printing											422
23. Repairs Maintenance									223		
24. Taxes									224		424
25. Laundry Expenses	A125	B125									
26. Insurance									226		426
27. Legal and Accounting											427
28. Advertising										328	
29. Subscriptions										329	
30. Depreciation	A130	B130	C130	D130	E130	F130	G130		230		430
31. Meetings and Lectures										331	
32. Miscellaneous Expense									232		432
33. Interest on Mortgage									233		
34. Employees' and Guests' Meals									234	334	

* Revenue in this department includes three classes which are usually combined in Account No. A100 by means of columnar ledger page. The classes are: board and maintenance, special nurses' board, guests' trays.

Numerical Designation of Accounts

Account Nos.	Designation
1–49	Assets
50–99	Liabilities and Capital
A100–199	Income and Expense—Board and Maintenance
B100–199	Income and Expense—Operating Room
C100–199	Income and Expense—Anesthesia
D100–199	" " " Laboratory
E100–199	" " " Drugs and Supplies
F100–199	" " " X ray
G100–199	" " " X-ray Therapy
H100–199	" " " Telephone
200–299	General Hospital Overhead
300–399	Publicity and Research
400–499	Administrative and Clerical
500–599	Other Income and Other Deductions from Income

Other Income would include such account designations as:

500–1	Purchase Discounts
500–2	Commissions on Blood Transfusions, etc.
500–3	Other Income

Other Deductions would include such account designations as:

535	Bad Debts
536	Collection Expenses
537	Interest on Other Indebtedness

Financial Statements

The management of a private hospital is interested in the results of operation during a given period of (1) Each department, and (2) of the hospital as a whole.

Besides these general results, it seeks the following statistical information:

1. The cost per patient day of the total components of each department
2. The cost per patient day of general hospital overhead
3. The cost per patient day of publicity and research
4. The cost per patient day of administration and clerical
5. The cost of food per meal
6. The cost of food and kitchen salaries per meal

Exhibit B

Statement of Income and Expense

Gross Income from Departmental Operations (Exhibit C)
General Hospital Overhead (Schedule 2)
Net Income from Departmental Operations
Publicity and Research (Schedule 3)
Administration and Clerical (Schedule 4)
Net Income from Operations
Other Deductions from Income:
  Bad Debts
  Collection Expense
  Interest on other indebtedness
Other Income:
  Purchase Discounts
  Blood Transfusions
  Other Income
Net Profit for the Period

Exhibit C

Statement of Departmental Operations

	Revenue	Expense Amount	Expense Cost Per Patient Day	Gross Income
Board and Maintenance (Schedule 1)				
Operating Room				
Anesthesia				
Laboratory				
Drugs and Supplies				
X ray				
X-ray Therapy				
Telephone				
Total				

Schedule 1

Analysis of Cost of Board and Maintenance

	Amount	Cost Per Patient Day
Medical and Nursing Care		
Drugs and Supplies—Free		
Salaries and Wages:		
Physicians		
Nurses		
Porters		
Maintenance of Nurses Home		
Rent		
Light and Heat		
Other Expense		
Laundry		
Salaries and Wages		
Laundry Expenses		

Kitchen (Schedule 1A)	
Depreciation	
Total	

Schedule 1A
Cost of Kitchen

	Amount	Cost per Meal
Meat and Fish		
Groceries		
Vegetables		
Dairy Products		
Bread		
Beverages		
Total Food		
Kitchen Gas and Coal		
Salaries and Wages		
Total		

Meals Served	No. of Meals	Total Cost	Distributed
Patients			Schedule 1
Employees			Schedule 2
Guests			Schedule 3
Total			

Schedule 2
General Hospital Overhead

	Amount	Cost Per Patient Day
Salaries and Wages—House		
Power and Light		
Coal and Fuel		
Repairs and Maintenance		
Taxes—Social Security		
Taxes—Real Estate } or Rent		
Interest on Mortgage } or Rent		
Insurance		
Depreciation		
Employees' Meals		
Miscellaneous Expenses		
Total		

Schedule 3
Research and Publicity

	Amount	Cost Per Patient Day
Salaries and Wages—Physicians		
Salaries and Wages—Technicians		
Advertising		
Subscriptions		
Meetings and Lectures		
Guests' Meals		
Total		

Schedule 4

Administrative and Clerical

	Amount	Cost Per Patient Day
Salaries and Wages—Office		
Telephone and Telegraph		
Stationery and Printing		
Other Taxes		
Insurance		
Legal and Accounting		
Miscellaneous Expense		
Depreciation		
Total		

Note: All operating statements may be made comparative with detailed budget accounts where the hospital operates on a budget, as most public and endowed institutions do.

Balance Sheet

Exhibit A

Assets

Current Assets
- Accounts Receivable
- Less: Reserve for Bad Debts
- Loans Receivable
- Inventories:
  - Food and Food Supplies
  - Drugs and Supplies
  - Other Stores

Total Current Assets

	Cost	Reserve for Deprec.	Net Book Value
Fixed Assets:			
Description			
Furniture and Fixtures			
Machinery and Equipment			
Linens and Uniforms			
Utensils and Dishes			

Deferred Charges to Future Operations:
- Unexpired Insurance
- Prepaid Alarm Expense
- Other Prepaid Expense

Total Assets

Liabilities and Capital

Current Liabilities:
- Accounts Payable
- Notes Payable

Due to Patients:
  Advance Payments
  Deposits
Accrued Expenses:
  Rents
  Interest on Mortgages
  Interest on other indebtedness
  Taxes
  Insurance Premiums
    Total Current Liabilities
Mortgages Payable
Other Long Term Indebtedness
Capital Accounts
    Total Liabilities and Capital

The valuation of assets and liabilities in a private hospital does not differ materially from that in any other commercial enterprise. The following items, however, deserve comment:

Patients' Accounts Receivable

Charges to a patient's account arise out of room counts, which summarize the census in the hospital, and requisitions, which represent requests for special services or supplies.

Patients' accounts are subdivided into three separate categories: (1) patients not yet discharged (active), (2) patients discharged (delinquent), and (3) patients' accounts due from hospital plans or insurance funds. When the accounts are voluminous and require the work of more than one clerk, it is advisable to maintain separate controlling accounts.

Inventories

The problems connected with stores are solved in relation to each situation. For example, all food purchases and supplies are a natural adjunct of the kitchens and should be controlled therefrom. Linens and uniforms sometimes are best controlled through the laundry by means of what is known as a "rotating basis." This term applies to the method whereby supplies are kept in fixed amounts and where clean linens, etc., is issued to departments by the laundry upon receipt of equal quantities of soiled or damaged linens. Renewals are issued to the laundry upon requisition from general stores and upon receipt of equal quantities of damaged linens. Where this system is not used, a separate storeroom may be maintained.

Drugs and supplies are kept separately for each of the following: (1) each ward or floor, (2) operating room, (3) each department, (4) pharmacy, and (5) general stores.

In all cases, drugs are issued on a responsible person's order and requisition, which is returned to the office where the proper costs are noted thereon. Those requisitions for drugs or supplies which are chargeable to the patient are made the basis for charges to the patient's account. All requisitions are posted to perpetual inventory records and their respective costs journalized once a month for purposes of proper distribution among the various departments.

Fixed Assets

Subsidiary records of individual items of equipment and fixtures are maintained for purposes of proper departmental distribution of depreciation charges. Such items as glassware, silverware, and instruments, are handled through group accounts and are not set up individually as are easily identified pieces of equipment, such as X-ray apparatus or laundry machines. Depreciation on any class of fixed assets, however, is chargeable to specific departments when it is exclusively used therein.

Bookkeeping Records

The books of original entry are cash receipts and disbursements, petty cash, purchases or voucher register, room count and earnings summary, and general journal.

The ledgers include the following:

The General Ledger contains all controlling accounts; general balance sheet accounts, liabilities and capital, detailed accounts of revenue and expenses. The latter is grouped according to departments.

Patients Accounts Ledgers are detailed records of each patient's transactions.

The Fixed Assets Ledger contains detailed accounts of each item of equipment or groups of special classes of supplies.

The Creditor's Ledger is a file of vouchers or detailed accounts of transactions with creditors (where voucher system is not used).

Inventories are detailed records of stores controlling inventories in groups according to location.

The Payroll Record is made up of two sections. One contains the time record and payroll summary (from which distribution to departments is made) and the other contains a continuous record of each employee with the accumulation of earnings, social security deductions, and general personnel information.

Besides the foregoing, other records may be required for purposes of furnishing medical statistics to various private and government agencies.

ACCOUNTING FOR PRODUCE GROWERS AND SHIPPERS

By

James A. Smith *

Brief Description of Business

Produce growing has developed from what, two decades ago, was a business composed almost entirely of local and individual enterprises, each engaged in producing a single farm commodity, into an industry wherein a large organization may, and usually does, raise many kinds of produce, from the readily stored potato to the highly perishable berry or cantaloupe. Highly trained organizations of experts operate in one or many communities, often across state lines and under all kinds of climatic conditions. Extensive acreages are farmed, often from a few to several hundred acres in each locality, with various crops being planted, cultivated, and marketed simultaneously.

For the most efficient utilization of farming equipment, the lands farmed in a given locality will be as nearly adjacent as possible. To this end, the organization either owns land or leases acreage of an extent to provide adequate capacity to engage in the most effective use of facilities, as well as to permit the rotation of crops, or to take advantage of the overlapping growing seasons of certain crops.

In each section in which the grower operates, he possesses facilities for farming. These, in addition to the farm property, barns, warehouses, etc., consist of tractors, trucks, farming equipment suitable to different crops, farm tools, and often portable living quarters for employees. For efficiency, all crops are prepared for marketing in a centrally located packing shed which is equipped with sorting tables, packing and boxing devices, ice-making and ice utilization machines, conveyors, labeling devices, hand trucks, and

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the many small tools required. Box or crate manufacturing is usually done by hand or machine upon the premises from shook (the bundled slats, ends, and covers) shipped to the packing site.

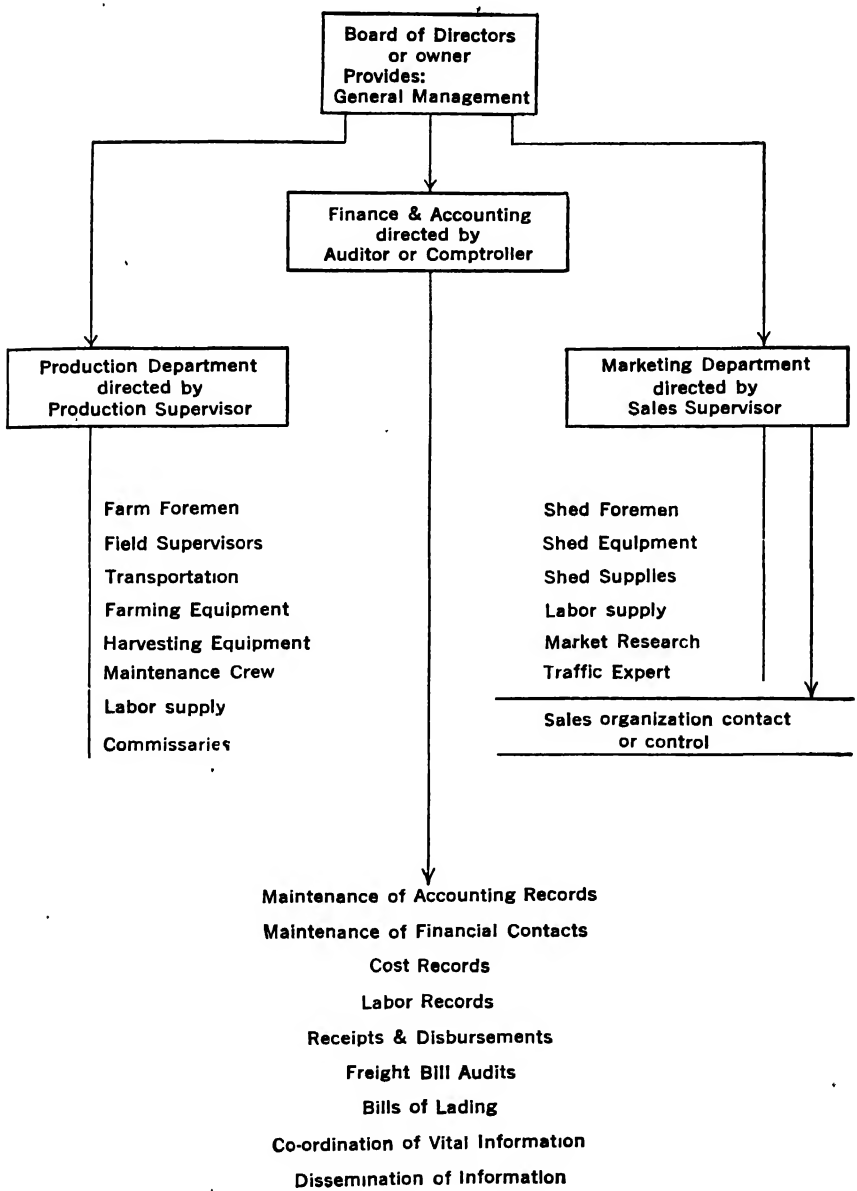
Marketing is generally effected in cities far removed from the source of supply, usually in carload or truck-load quantities, seldom in smaller amounts. Railroad sidings provide facilities for loading the produce and shipping it directly to market in refrigerator cars as fast as the produce can be packaged and made ready. While some selling is done to buyers from central distributing points, who buy F.O.B. point of origin and assume responsibility for transportation, the bulk of the marketing is done by consignment to sales organizations situated in distribution centers. The sales agent is usually related to the producer and shipper only by contact. A producer sometimes maintains his own selling force, but generally does so under a separate organization. The natural division of risks and operations lends necessity, or at least advisability, to the separation of production and ultimate sales distribution organizations.

Regardless of the form of selling organization, the problem of profitable marketing is the same. Inasmuch as the terminal price determines the profit from the operation, it becomes necessary to know the cost of production and preparation for market as well as the cost of marketing. Otherwise, markets glutted with similar produce might well return less than cost.

The business, with duties involved, naturally falls into readily separable activities, each requiring special methods of control through accounting:

1. *Production and harvesting:* utilization, preparation, planting, cultivation of land; selection for harvest; removal from field; transportation to packing shed.
2. *Preparation for market:* grading, packaging, labeling, and loading for shipment.
3. *Marketing:* selection of sales agents; selection of terminal marketing centers; control of routing; ascertainment of arrival periods at destination; knowledge of market loading and price structure.
4. *Management:* financing; accounting; supervision of production, harvest, preparation and marketing.

A TYPICAL ORGANIZATION CHART



Theory of Accounts

Accounting problems presented by the nature of the industry and the practical solutions adopted therefor naturally exert an influence upon the accounting system designed. Several features of the industry which require somewhat unusual treatment in the accounts may be commented upon.

Deferred Income

It sometimes happens that a crop may be only partly marketed at the close of the fiscal period and it is impossible to tell whether the cost of production plus the necessary marketing cost will be recovered. It is therefore necessary to carry deferred income accounts for the purpose of showing the return from sales of crops where the entire harvest is not complete. The partial sale of the crop is thereby deferred to the year in which the operation is completed. The expenses incurred in harvesting and marketing specific crops on which there may be deferred income are not carried as deferred expenses but the applicable expense accounts themselves are carried as assets which are part of the investment in the crop.

When the final marketing return has been received, all accruals and apportionments to which the specific crop was subject, are made. The investments in crop and marketing expenses are written off to Profit and Loss and the income is likewise taken out of the deferred group. As soon as these closing steps have been taken, the amount of the profit or loss on a specific crop may be determined.

Fiscal Year

This siutation makes it advisable that the fiscal year be established so as to end at a time in the business year when there are no partly marketed crops. A minimum of such incomplete deals at the end of the year results in minimum difficulty in this regard. As growing crops are inventoried at investment at the close of the fiscal period, no problem is presented in finding profit or loss thereon.

Controlling Deals

The term "deal" is used generally in the industry to designate the marketing of separate crops, such as canteloupe deal, tomato deal, or spring deal. The ledger setup contemplates the use of a

general control for each, which is maintained in the principal accounting office. All transactions affecting the deal are transferred to these in total as each deal is closed. Accounting for the deal while in process proceeds upon the general theory of branch accounting. A separate set of subsidiary ledgers is maintained for each deal while it is in process, controlled by a general ledger account. The management is informed through the controlling account, at all times of the gross investment in each deal in each district, while a fully detailed analysis of the investment is on record in the deal ledgers.

When it becomes necessary to send an office man to take charge of the activities and accounting for the deal, he maintains the deal records himself, showing complete details of all operations. It is only necessary to carry to his deal book as a liability to the home office the amount of the net difference in his trial balance. This analysis will, of course, in each case correspond with the advances account in the general ledger control. When the deal has been closed, the books are returned to the general office and the closing journal entry is made and posted, giving a complete distribution of all the operations and placing them in the various ledger accounts. At the same time, the controlling account of the deal is closed.

Lease Rentals

Lease of land involves a liability for the entire term of the lease. Therefore, when land is leased, the value of the lease should be charged to A 810, Deferred Leaseholds and credited to L 710, Deferred Leasehold, contra. Leases, as they expire, are removed from both accounts, the balances of which are always equal. These two accounts form a valuable adjunct in setting forth the stability of operations.

Rentals paid are charged to prepaid leases, A 710. Lease rentals due but unpaid or accrued are credited at the close of the year to L 350, Accrued Lease Rentals and charged to the lease expense E 101. Clearance of A 710 is also made to E 101 as crop periods expire.

Rental Charges to Crops

Where two or more crops are produced on the same land in one year, the primary crop is the one of greatest importance or taking the longest time to come to maturity. The primary crop is charged with the total acreage rent, since it is not certain that another crop will be planted. If planted, the secondary crop should be charged and the primary crop credited with a proper proportion of the annual rental.

Cost Accounting

Costs of crops harvested should be recorded upon work sheets by farms and by commodities. The yield for each farm should be determined for all perishable commodities by estimate prior to actual harvest or marketing. Given the direct and prorated costs of each farm for each crop, the yield can be priced, ready for harvest, on the unit basis. The base cost per unit when determined should have added the unit cost of preparing for market and marketing. With this knowledge, and the market price known, the shipper can readily determine when to cease shipping to an oversupplied market in order to avoid losses. The cost figures may also be used to check farm performance, supervisor's ability, yield by districts and for other purposes.

Accounts Required

The need is apparent for an accounting method exacting in detail and exhaustive in its coverage. Such a method must provide and correlate exact cost finding with operating results; provide accurate data for financial statements; supply management with full details of operation while the reports are recent enough to be usable; and interpret present market factors into language which plainly foretells the probability of profits or loss under current conditions of supply and demand.

To meet these needs a chart of accounts requires flexibility and adaptability, both in the classification itself and in the symbolic designation. The mnemonic method of account designation is believed suitable for this type of accounting due to the diversity of major account classifications. The plan is an adaptation of the Dewey decimal system, omitting the use of the decimal and substituting simply the ending digit. Thus, account 100 would have for

its subclassification 110, 120, etc., and 110 or 120 again might have subdivisions using the digit one to nine.

The following chart illustrates a possible classification of accounts used in the industry:

Chart of Accounts

A . . . . Assets

A 100 Cash
200 Receivables
300 Inventories
400 Investments
500 Fixed Assets
600 Reserved for Depreciation of Fixed Assets
700 Prepaid Expenses
800 Deferred Charges
900 Other Assets

L . . . . Liabilities

L 100 Accounts Payable
200 Contracts Payable and Notes Payable
300 Accrued Expenses
400 Stockholders and Others
500 Mortgages (fixed term)
600 Trust
700 Deferred
800 Valuation Reserves
900 Capital and Surplus

I . . . . Income

100 Service to Others
200 Sales of Merchandise bought for resale
300 Other Sundry Income
400 Gross Income from Produce Raised

C . . . . Cost of Sales

C 100 Cost of Services to Others
200 Purchases for resale
300 Other Sundry Losses
400 Cost of Selling and Marketing Produce Raised

E . . . . Expenses

E 100 Farming Expense
200 Field Expense
300 Auto and Truck Expense
400 Farm Equipment and Tractor Expense
500 Shed Expense
600 Administration Expense
700 Licenses, Taxes, Insurance
800 Depreciation

T . . . . . TRANSFER AND CLEARING ACCOUNTS

A . . . . ASSET ACCOUNTS

A 100 *Cash*—(subdivisions as required)
A 200 *Receivables*
A 210 Notes Receivable
220 Trading Accounts Receivable
230 Accounts of Officers and Employees
260 —1, 2, 3, 4 represents separate deal
270 Guarantee Deposits
280 *Growers Accounts Receivable*
281, 282, etc.) } Advances to Growers by deals: Each number to represent a deal:
290 *Agents Accounts Receivable*
291, 292 } Due from agents by deals, each number to represent a deal using same as above
A 300 *Inventories*
310 *Seeds and Plants* (subdivisions as required)
320 *Crates and Nails*
330 *Shed Supplies*
340 *Farm Supplies*
350 *Growing Crops*
351, 2, 3 } Each digit represents a crop in each cycle
A 400 *Investments*
A 500 *Fixed Assets*
510 *Land Owned and Business Real Estate*
511 Buildings
512 Roads and Bridges
513 Irrigation Systems
514 Sewer and water systems (including wells)
515 Land Cost
520 *Autos and Trucks*
521, 522, etc. } By individual pieces of equipment by years
530 *Farming Equipment*
531, 532, 533, etc. } By pieces of equipment according to year of purchase, 531 being 1936; 532, 1937, etc.
540 *Shed Equipment*
541–2, etc., by years purchased, major equipment and machinery only (not shed tools).
550 *Office Equipment*
551–2, etc., by years purchased
560 *Structures on leased land*
561 Sheds
562 Railroad spurs and sidings
563 Roads, bridges and culverts

570 Teams and Harness
571 Mules
572 Horses
573 Harness
A 600 Reserves for Depreciation of Fixed Assets
610 Real Estate Improvements
611 Buildings
612 Roads and Bridges
613 Irrigation Systems
614 Sewer and Water Systems (including wells)
620 Autos and Trucks
621
622, etc., by same items as 521–2, etc.
630 Farming Equipment
631, 2, etc., by years of purchase as in 531–2, etc.
640 Shed Equipment
641, 2, etc., by years purchased as in 541, 2, etc.
650 Office Equipment
651–2, etc., by years purchased as in 551, 2, etc.
660 Reserve for Amortization of Improvements to leased properties
661 Sheds
662 Railroad spurs and sidings
663 Roads, bridges and culverts
670 Teams and Harness
671 Mules
672 Horses
673 Harness
A 700 Prepaid Expenses
710 Leases paid in advance
720 Prepaid Rent
730 Prepaid Interest
740 Unearned Insurance Premiums
A 800 Deferred Charges
810 Deferred Leaseholds (contra)
820 Advance preparation of land
830 Taxes and Licenses Paid (contra)
A 900 Other Assets (subdivisions as required)

L . . . . LIABILITIES

L 100 Accounts Payable
110 Trading Accounts
120 Growers Accounts
121–2–3, etc.—by deals with same groupings as in A 280
130 Agents Accounts
131–2–3, etc.—by deals with same grouping as in A 290
140 Federal Taxes Assessed
150 State Taxes Assessed
160 Dividends Declared
L 200 Notes and Contracts Payable
210 Notes—Secured

	220	Notes—Unsecured
	230	Contracts for Equipment
L	*300*	*Accrued Expenses*
	310	Accrued labor payrolls
	320	Accrued interest
	330	*Accrued Taxes* (subdivisions as required)
	340	*Accrued Insurance*
	350	Accrued Lease Rentals
L	*400*	*Advances by Stockholders*
	410	Due Officers
	420	Due Stockholders
L	*500*	*Fixed Liabilities*
	510	Mortgages on Real Estate
L	*600*	*Trust Liabilities*
	610	Freight Claims Collected
L	*700*	*Deferred*
	710	Leasehold—total lease rental to expiration (contra A 810)
	720	Deferred Income—other
	730	Liabilities for post-season adjustments
	740	Commissions on preseason sales
	750	Preseason income deferred to final returns
	760	Sales Revenue—Incomplete deals
L	*800*	*Valuation Reserves (Not Depreciation)*
	810	Reserve for bad accounts
	820	Reserve for judgments
	830	Reserve for contingencies
L	*900*	*Capital Accounts*
	910	Capital Stock issued—common
	920	Capital Stock issued—preferred
	930	Capital debentures
	940	Paid-in Surplus
	950	Contributed Surplus
	960	Earned Surplus
	970	Current Years Earnings (P. and L.)
	980	Advance (capital provided) by main office to this deal (for use in *deal* books only, when needed)
I	. . . .	INCOME
I	*100*	*Services to Others*
	101	Commissions earned
	102	Brokerage earned
	103	Shed fees and rentals
	104	Packing fees (charges)
	105	Seed and plants sold
	106	Crates and nails sold
	107	Materials and supplies sold
	108	Ice sold
	109	Inspection
	110	Hauling
	111	Dusting or insect control

I 200 *Sales of Merchandise (Fruit, Vegetables and Grain) bought for resale*
201, 202, 203 by commodity

I 300 *Miscellaneous Income*
301 Interest
302 Dividends
303 Freight Claim recoveries
304 Damage Claim recoveries
305 Bad Account recoveries
306 Rents and subleases (land, buildings, etc.)
307 Sale junk

I 400 *Gross Income from car lot sales by commodities—Spring lettuce; carrots; cabbage, etc. by* deals

C . . . . COSTS

C 100 *Cost of Services to Others*
101 Commissions paid
102 Brokerage paid
103 Shed fees and rentals paid
104 Packing paid
105 Seed and plants sold
106 Crates and nails used and sold
107 Materials and supplies used and sold
108 Ice bought for use or sale
109 Inspection
110 Hauling
111 Dusting or aphicide control
112 Cost of collecting freight claims

C 200 *Cost of Purchase for Resale*
By commodity or deal

C 300 *Miscellaneous Losses and Costs*
301 Bad Accounts charged off
302 Accounting adjustment debits
303 Cost of asset sold
304 Losses uninsured
305 Personal Injury

C 400 *Cost of Selling* (Deducted from Account Sale)
401 Freight
402 Icing
403 Commission
404 Brokerage
405 Telephone and telegraph
406 Exchange
407 Miscellaneous

E . . . . EXPENSES

E 100 *Farming Expense*
101 Lease Rental
102 Irrigating water

103 Preparation; tillage and planting by contract
104 Labor
105 Rent and care of work animals
106 Seeds and Plants
107 Fertilizer
108 Supplies
109 Miscellaneous
110 Harvesting by contract
111 Crop insurance

Note: E 100 should be prorated according to acreage *under cultivation by either crops or leases, on cost sheets.*

E 200 Field Expense
201 Salary of Supervisor and Foremen
202 Transportation of field crews
203 Expense of field crews
204 Supervisor's car expense
205 Commissary Costs

See note *re* E 100 above—*apply same to E 200*

E 300 Auto and Truck Expense
301 Labor—Operators
302 Parts and Materials (repairs)
303 Outside repairs contracted
304 Gas, oil and grease
305 Tires
306 Supplies

E 400 Tractor and Equipment Expense
401 Labor—Operators
402 Parts and Material (repairs)
403 Outside repairs contracted
404 Gas, oil, and grease
405 Tires
406 Supplies

So much of auto and truck expense as is applicable to farming may be prorated upon proper basis on cost sheets. Separate cost sheets may be maintained for each piece of equipment if desired.

All tractor and farm equipment expense should be prorated by acreage farmed, on cost sheets.

E 500 Shed Operations (Packing, Packaging, Shipping)
501 Labor, shed
502 Labor, packing
503 Freight, express and hauling (to shed)
504 Shed supplies
505 Expendable equipment used
506 Water, light and power
507 Rent
508 Repair sheds
509 Repair shed equipment

501 Precooling

Since only one crop is usually packed at a time, the expenses for that crop are all in this class, and when completed the shed operation may be closed directly to the P. and L. for the crop involved.

E 600 *Administrative Expense* (subdivisions as required)
E 700 *Licenses, Taxes, Insurance and Interest*
710 *Taxes and License Fees*
720 *Insurance*
730 *Interest and Exchange*
E 800 *Depreciation of:*
801 Buldings—owned
802 Sheds owned
803 Roadways and Bridges
804 Water and Sewerage Systems
805 Irrigation Systems
806 Autos and Trucks
807 Farming Equipment
808 Shed Equipment
809 Office Equipment
810 Teams and Harness
811 Spurs and Sidings
T 100 *Transfer and Clearing Accounts*
110 Transfers between Banks
120 Cash Sales

Note: All cost and income accounts may be and should be segregated by states in which the company is licensed to operate, as state income tax is to be affected thereby. The same account covers, but the State name or designation is used to follow the account number.

Cost-finding data may be secured by prorating farming costs, field expense, and tractor and equipment cost to farmed areas according to acreaage farmed by your own labor and equipment. This is usually done on separate cost statement sheets rather than in the ledger.

All overhead items may be prorated if desired, as groups, by applying on the basis of crate-yield, acreage farmed, or gross revenue per crop.

Bookkeeping Methods

The books of original and subsidiary record are:

1. Cash receipts journal
2. Cash disbursement and check register
3. Purchase invoice register
4. Payroll journal and distribution record
5. Pool sheet (Sales Summary and Shipment Record)
6. General journal

7. General ledger (Analysis Type Sheet only)
8. Subsidiary accounts payable ledger
9. Subsidiary accounts receivable ledger
10. Crop and production record
11. Individual employment records

These represent the usual books of account found in businesses of medium or large size and entries, and postings thereto are made in the usual manner. The "pool sheet," however, is unique. This record permits the accumulation of data concerning the shipment by carload quantity or by LCL quantities. The entries that come to the pool record are those which appear on the account sale form rendered by the agent for each car received by him and sold for the account of the shipper.

The agent remits only the net sum due the shipper after deductions. "Agent's net" should correspond with the amount received and deposited in the bank, shown upon the receipts journal as a credit under Agents Accounts.

Other columns, for example, net commission and inspection, are for the purpose of picking up items of expense as memoranda only, in order to show the net result of each pool. These items are almost invariably paid by the shipper and, when paid, are charged directly to the proper expense accounts.

The pool record is the only record disclosing information that will enable the shipper to determine whether each car sold was sold at a profitable price. Because the number of units and the amount at which each is sold appear upon the record, the shipper is informed as to what his net return per car will be when the market reaches a certain level; therefore, he is in a position to curtail shipments or to cease entirely when such action is warranted.

The pool record is also valuable when goods are being handled for others by the shipper acting as agent. From the information available on this record, the prorata return to the producer may be determined.

The items of expense deducted by the agent, together with the gross amount of the sale, are carried to the proper accounts in the ledger after the pool is closed, the pool record being used as a journal. These items are needed for proper presentation of an income tax return. The item of gross sales is carried to account I-200, Sales of Merchandise, and separated by commodity on the analysis

ledger. The items of freight, agent's commission, and other deducted expenses are carried to account C-400, Cost of Selling, and to its subsidiary accounts.

Since the agent's accounts are credited through the cash receipts journal with amounts received from shipments, we now find it necessary to make the proper charges against these agents' accounts in order to determine whether the shipper has money due from the agent or the agent has money due from the shipper. From the Agent's Net column on the pool record, items in black ink are charged to the agent's account receivable and deficit items, entered in red ink, are credited. The total of the column is carried to account A-290, Agents Accounts Receivable, in the general ledger.

ACCOUNTING FOR PUBLIC UTILITIES

By

ROGER A. SEEBE *

BRIEF DESCRIPTION OF BUSINESS

A public utility or public service company is defined as "a company partly under government or municipal control, for supplying necessary public requirements" (Funk & Wagnall's *Dictionary*). The rendering of service "affected with a public interest" is a long-established criterion of a public utility. As a practical matter, industries classed as public utilities are those defined as such by the laws of the various states under whose jurisdiction they operate. Certain industries, such as public warehouses or stockyards, may be classed as public utilities in certain states but not in others.

The commonest and most important public utilities would include:

1. Transportation
   a. Steam Railroads
   b. Electric Railroads
   c. Water Carriers
   d. Motor Carriers
   e. Air Carriers
   f. Express Companies
   g. Sleeping Car Companies
   h. Pipe Line Companies
   i. Bridges
2. Service or Commodity
   a. Electric Companies
   b. Gas Companies
   c. Water Companies
   d. Heating Companies
   e. Refrigerating Companies
3. Communication
   a. Telephone Companies
   b. Telegraph and Cable Companies
   c. Radio Companies (excluding Broadcasting)
4. Storage
   a. Warehouses
   b. Grain Elevators

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Most public utilities are monopolies operating without competition and exist by public grant. As such they are obligated to protect the public's interests, and to provide without discrimination adequate facilities at reasonable rates to all who apply. Conversely, public utilities have certain privileges, such as an exclusive franchise, the use of public streets, the right of condemnation, and the right to earn a fair return on their capital.

All states, except Delaware, have public utility regulatory bodies or commissions with power to regulate those industries classed as public utilities under the respective state laws. In addition, public utilities operating in interstate commerce are controlled by various Federal regulatory bodies, the most important of which are the Interstate Commerce Commission, the Federal Communications Commission, the Federal Power Commission, and the Securities and Exchange Commission.

All state regulatory commissions prescribe uniform classifications of accounts for those public utilities coming under their respective jurisdictions. In cases of overlapping jurisdiction with Federal regulatory bodies covering utilities in interstate commerce, the state uniform classifications generally agree with the corresponding Federal classifications. Largely through the agency of the National Association of Railroad and Utilities Commissioners Federal and state uniform classifications of accounts are now fundamentally in agreement.

Some utilities, such as railroads, and telegraph companies, cover wide areas, while others are limited to a small area, such as an electric plant in a small community. Many companies also give multiple utility services, which may include electric current, gas, street railway operation, heating and refrigeration services, and may also offer other types of service that do not come under the category of a public utility.

Theory of Accounts

Since public utilities are regulated industries the system of accounts used must conform to the uniform classifications as promulgated by the various regulatory commissions. Accounting is a very important tool for utility regulation. Control is exercised through the classifications of accounts to be used and instructions regarding interpretations thereof. Uniformity is a prime requisite.

Primarily, the uniform classifications of accounts require a clear differentiation between capital and income. This differentiation is important because public utilities are entitled to earn a fair return on their capital. The capital upon which a fair return is predicated represents the rate base, and consists of utility plant used and useful in furnishing service and floating capital sufficient to ensure efficient operation of the plant. It should be noted that the fair value of capital employed need not necessarily be the book value of these assets. The courts have held that in addition to original cost, cost of reproduction and present value are relevant factors.

"Fair return" is measured by operating income, which consists of the revenues received from customers less normal operating expenses. Hence careful distinction must be made between operating and nonoperating income, the latter arising from property not used in utility service.

A comparatively new feature relative to accounting for plant assets has recently been instituted for many public utilities, particularly gas, electric, and telephone companies. Plant assets must now be recorded at the original cost thereof, with original cost defined as the cost of plant to the person first devoting it to public service. The difference between such original cost and the cost to the utility must be set up in a Plant Acquisition Adjustment account. This account may be amortized by current deductions from operating income if authorized by the regulatory commission, but this is not required at present.

For purposes of avoiding undue refinements in accounting for additions to and retirements and replacements of plant property, the latter is subdivided into "Units of Property" which are further subdivided into "Minor Items of Property." An example of a unit of property is an electric generator with adjunctive turbine, exciter, pumps, and other accessory equipment. The accessories are the minor items of property. Units of property when retired with or without replacement must be credited to the Plant account and debited to the Reserve for Depreciation account. Minor items when retired and not replaced are treated in like manner unless their cost is insignificant. When minor items of property are retired and replaced by a similar item, the cost of replacement is charged to maintenance and no entry for the retirement is required.

Depreciation accounting is now generally prescribed for public

utilities. Until recently, most utilities other than railroads and telephone companies used the retirement reserve method of providing for plant renewals. The amounts of these retirement reserves were determined by the management based on expected replacements and not on percentage ratios of existing plant. The use of depreciation accounting by utilities brings that feature of utilities accounting into agreement with that of most other industries. However, the basis for computing depreciation for utilities is on "original cost" rather than on actual cost to the utility.

Operating accounts must be segregated into the chief types of service, namely, electricity, gas, traction, etc. A utility that sells several types of service will incur many expenses that apply to the several types of service. Such expenses must be distributed monthly to each type of service on an equitable basis, such as volume of sales or floor area used, depending upon the nature of the expense.

The accounting for revenues must be further segregated by classes of sales, i.e., residential, commercial, sales to public authorities, sales to other utilities, etc. There are no requirements for segregating the operating expenses by these classes of sales, which would be impracticable.

Cost accounting as usually understood is not used in public utility accounting. Some attempts, however, have been made in the case of railroad accounting to segregate freight operating expenses into costs by particular commodities hauled per car-mile. Such studies are only for statistical purposes and are not a constituent part of utility accounting.

Accounts Required

The accounts required by a public utility are necessarily those prescribed by the regulatory commission. No other accounts except temporary ones may be kept, but prescribed accounts may usually be subdivided as desired.

The following are the general ledger accounts that comprise the most important income and expense accounts as prescribed for service utilities by the Federal Power Commission and a majority of state commissions. Account numbers are always prescribed, but these vary under each jurisdiction, the numbers shown below are item numbers.

1. *Operating Revenues* includes all operating revenues derived

from the operations of the utility's prime type of service. Subaccounts must be maintained showing the different classes of service.

2. *Operation and Maintenance Expenses* includes all expenses, except taxes, incurred in operation of the prime type of service. In some jurisdictions depreciation is included in this account while in others it must be shown in a separate account. A very extensive series of subaccounts many of which must be further subdivided must be maintained. The principal divisions of expenses are: (a) production, (b) transmission, (c) distribution, (d) customers' accounting, (e) sales promotion, and (f) administrative and general.

3. *Amortization of Plant Acquisition Adjustments* provides for the extinguishment of the Plant Acquisition Adjustment account. The latter account arises through the requirement of showing the plant value at "original cost." Amortization is not required and special approval must be obtained if it is to be included in operating income.

4. *Property Losses Chargeable to Operations* provides for amortization of Extraordinary Property Losses which it is desired to write off over several periods. Special approval must be obtained to use this account.

5. *Operating Taxes* are all taxes relating to the operations of the prime type of service. Under some jurisdictions Income and Excess Profits and Capital Stock taxes may not be included in this account when such taxes are not allowable as operating revenue deductions.

6. *Income from Plant Leased to Others* includes revenue from the leasing of any complete operating unit and the expenses incurred therefrom including depreciation and taxes. Subaccounts must be maintained for the income and the different classes of expenses.

If the utility renders more than one prime type of service, separate general ledger accounts must be maintained for items 1 to 6 above for each prime type of service.

7. *Other Utility Operating Income* includes revenue and expenses relating to any portion of the utility plant not used in the operations of the prime type of service rendered.

8. *Income from Nonutility Operations* includes revenue and ex-

penses incurred relating to nonutility operations, such as lumbering operations.

9. *Revenues from Lease of Other Physical Property* includes rent revenues from any property not devoted to utility operations.

10. *Dividend Revenues* includes all dividends received except those from securities held in sinking funds.

11. *Interest Revenues* includes all interest received except that on securities held in sinking funds.

12. *Revenues from Sinking and Other Funds* includes all dividends and interest on securities or other assets held in sinking fund and special fund accounts.

13. *Miscellaneous Nonoperating Revenue* includes all revenues not provided for elsewhere.

14. *Nonoperating Revenue Deductions* includes all expenses, including taxes, incurred in connection with the revenues of above items 9 to 13 inclusive.

15. *Interest on Long-Term Debt*—Subaccounts must be maintained for each series of long-term debt.

16 and 17. *Amortization of Debt Discount and Expense* and *Amortization of Premium on Debt* includes portion of debt discount and expense or premium on outstanding long-term debt to be equitably distributed over the life of each issue.

18. *Taxes Assumed on Interest* includes taxes on interest paid to holders of bonds or other indebtedness of the utility when such taxes are assumed by the utility.

19. *Interest on Debt to Associated Companies* includes interest on advances from and notes payable to associated companies, but does not include interest on long-term debt held by associated companies.

20. *Other Interest Charges* includes interest on notes payable, other than those due to associated companies; on tax assessments; on customers' deposits; and on claims and judgments.

21. *Interest Charged to Construction* is a credit account which offsets interest charged to construction and capitalized in the Plant account, and represents the cost of borrowed funds or the utility's own funds when so needed during the period of construction.

22. *Miscellaneous Amortization* includes amortization not elsewhere provided for and also amortization on Plant Acquisition Adjustments when the latter is not allowed as an operating deduction.

23. *Miscellaneous Income Deductions* includes sundry debits to income, such as write-down in value of investments, donations, nonreimbursable expenditures for associated companies, and penalties or fines for law violations.

24. *Income Taxes* includes income, excess profits, and capital stock taxes when these are not allowed as operating revenue deductions.

25. *Miscellaneous Reservations of Net Income*—Amounts required to be reserved out of income under terms of contracts, agreements, or court orders are charged to this account and credited to the appropriate reserve account.

In addition to the regular financial accounts many statistical accounts are also required. The most important is the quantity of service or commodity sold to each customer and the total quantities sold during each billing period.

Operating Statements

The most important feature of a public utility operating statement is the segregation of operating income and other income. The following income statement is suitable for service utilities:

Income Statement

Operating Revenues
Operating Revenue Deductions
  Operation and Maintenance
  Depreciation
  Amortization of Plant Acquisition Adjustments
  Property Losses Chargeable to Operations
  Operating Taxes
    Total Operating Revenue Deductions
    Net Operating Revenues
Miscellaneous Operating Income
  Income from Plant Leased to Others
  Other Utility Operating Income
    Total Miscellaneous Operating Income
    Total Operating Income
Other Income
  Income from Nonutility Operations
  Revenues from Lease of Other Physical Property
  Dividend Revenues
  Interest Revenues
  Revenues from Sinking and Other Funds
  Miscellaneous Nonoperating Revenues
  Nonoperating Revenue Deductions
    Total Other Income
    Gross Income

Income Deductions
Interest on Long-Term Debt
Amortization of Debt Discount and Expense
Amortization of Premium on Debt (Credit)
Taxes Assumed on Interest
Interest on Debt to Associated Companies
Other Interest Charges
Interest Charged to Construction (Credit)
Miscellaneous Amortization
Miscellaneous Income Deductions
Income Taxes (When not allowed as operating expense)
Total Income Deductions
Net Income
Miscellaneous Reservations of Net Income
Balance Transferred to Earned Surplus

Balance Sheet

The balance sheet of a public utility differs from the usual form chiefly in the order in which the various assets and liabilities are shown. Because the plant assets are the most important, these are always shown first. A usual form of public utility balance sheet follows:

Assets and Other Debits

Utility Plant
Plant in Service
Plant Leased to Others
Plant Held for Future Use
Plant Acquisition Adjustments
Other Utility Plant
Common Utility Plant
Investment and Fund Accounts
Other Physical Property
Investments in Associated Companies
Other Investments
Sinking and Special Funds
Current and Accrued Assets
Cash
Special Deposits
Notes Receivable
Accounts Receivable
Receivables from Associated Companies
Interest and Dividends Receivable
Rents Receivable
Accrued Utility Revenues
Materials and Supplies
Prepayments
Other Current and Accrued Assets

Deferred Debits
Unamortized Debt Discount and Expense
Extraordinary Property Losses
Clearing Accounts
Retirement Work in Progress
Other Deferred Debits
Capital Stock Discount and Expense
Discount on Capital Stock
Capital Stock Expense
Reacquired Securities
Reacquired Capital Stock
Reacquired Long-Term Debt

LIABILITIES AND OTHER CREDITS

Capital Stock
Common Capital Stock
Preferred Capital Stock
Stock Liability for Conversion
Premiums and Assessments on Capital Stock
Long-Term Debt
Bonds
Receivers' Certificates
Miscellaneous Long-Term Debt
Advances from Associated Companies
Current and Accrued Liabilities
Accounts Payable
Notes Payable
Payables to Associated Companies
Dividends Declared
Matured Long-Term Debt
Matured Interest
Customers' Deposits
Taxes Accrued
Interest Accrued
Other Current and Accrued Liabilities
Deferred Credits
Unamortized Premium on Debt
Customers' Advances for Construction
Other Deferred Credits
Reserves
Reserve for Depreciation of Utility Plant
Reserve for Amortization of Plant Acquisition Adjustments
Reserve for Depreciation of Other Property
Reserve for Uncollectible Accounts
Insurance Reserve
Injuries and Damages Reserve
Other Reserves
Contributions in Aid of Construction
Surplus
Capital Surplus ("Unearned Surplus" in some jurisdictions)
Earned Surplus

Most of the items are found in usual trade balance sheets and are self-explanatory. Some of the items however are peculiar to public utilities. Comments on these follow.

Utility Plant

Any of the several utility plant accounts are to be shown at original cost, which, as previously stated, means the cost of the property to the person first devoting it to public service. The difference between such original cost and the cost to the utility is shown in the Plant Acquisition Adjustment account, which may be amortized in periodic installments, although this is not now required. In any case, the amount in the Plant Acquisition Adjustment account would remain intact because amortization installments would be credited to the Reserve For Amortization account.

Physical plant costs may include any expenses incurred in connection with its construction, including such items as legal expenses, taxes, and interest during construction. In addition to the physical plant, certain intangible items also are part of the utility plant, such as organization expenses, costs of franchises and consents, and costs of patent rights.

If the utility is engaged in more than one utility service, separate plant accounts must be maintained for each type of service. Any property jointly used for several types of service is shown in the Common Utility Plant account.

Special Deposits

This account contains deposits with fiscal agents for payments of interest and dividends and special deposits to insure performance of contracts.

Accrued Utility Revenues

This is an optional account which provides for the estimated amount of service rendered but not billed at the end of an accounting period. Where service is metered the amount of service rendered cannot be definitely determined at the end of an accounting period since it would be impossible to read all meters on one day. Many utilities do not accrue such estimated revenue since the condition is practically the same at the beginning and end of the accounting period, with the result that the operations of the period are not materially affected.

Materials and Supplies

This account comprises all materials and supplies, including those to be consumed in operation or in construction, and those held for sale. The items are valued at cost, except scrap which is valued at market. Inbound transportation charges are properly included in costs, while cash and trade discounts are deductible. Physical inventories must be taken at least once a year.

Unamortized Debt Discount and Expense

Debt discount and expense must be amortized over the life of the relating issue of bonds. However, with permission, the balance may be charged off before the bond issue matures. Any unamortized discount and expense remaining when a bond issue is retired before maturity must be written off.

Clearing Accounts

These accounts are used for service departments, such as stores, transportation, and laboratory prior to redistribution to the proper expense or asset accounts. Only items relating to a future period should remain in the balance of these accounts at the end of any period.

Retirement Work in Progress

Charges to this account consist of amounts credited to plant accounts at the date the property is retired from service, and costs of removal and dismantling. Salvage and insurance recoveries are credited to the account. Upon completion of each job, the balance is closed to Reserve for Depreciation.

Reacquired Securities

Reacquired capital stock is shown at par value, or if nonpar, at the amount at which it is included in the Capital Stock account. Reacquired long-term debt is shown at par value. The difference between the above values and the amounts paid is debited or credited to either Earned Surplus or Capital Surplus depending upon the jurisdiction. The account does not include securities bought for sinking funds.

Customers' Deposits

This account includes all amounts deposited with the utility by customers as security for payment of bills.

Customers' Advances for Construction

When special equipment is needed to serve a customer, sometimes the latter must advance amounts which will be refunded provided stipulated amounts of service are purchased within a given period. Such advances are credited to this account. If any part of the advance later becomes forfeited, such part must be transferred to Contributions in Aid of Construction account.

Reserve for Depreciation of Utility Plant

This account is credited with the current depreciation of plant. The methods or rates of depreciation are usually not specified, but in some cases the straight-line method is prescribed.

Plant units retired are charged to the Reserve account usually after being cleared through Retirement Work in Progress account. Under some jurisdictions the profit or loss on sale of land is credited or debited to the Reserve account. When a complete operating unit of plant is sold the accumulated depreciation carried in respect to such unit in the Reserve account is eliminated.

Contributions in Aid of Construction

This account is for nonrefundable contributions from municipalities, individuals, and others for any plant construction purposes. Such amounts must remain in this account permanently, unless the item of plant covered by the contribution is later sold, in which case the amount of the contribution will be eliminated from this account. No reduction is allowed for plant items covered by contributions that are permanently abandoned.

Bookkeeping Methods

The most important accounting records of a public utility are the following:

The General Ledger contains generally only control accounts.

Books of Original Entry are the usual journals, cash books, voucher record, sales records, etc. The different kinds of utilities have peculiar original entry records for recording operating rev-

enues. Utilities selling metered service generally use the meter readers' books as posting mediums to the customers' accounts receivable records; transportation utilities use agents' reports of ticket sales. Cashiers' reports and branch reports are other sources for compiling entries to the income journals.

Accounts Receivable Ledgers are used separately for regular operating revenues and for other sales and charges. Utilities selling metered service use a method commonly called the Cycle Billing System for billing customers and controlling the accounts receivable by which customers are grouped into districts. The meters of each district are read on separate specified days throughout the month. Each district has its own control, and trial balances are taken monthly just before the monthly billings are posted. The individual controls are reconciled with the general control as of the end of a month by applying cash receipts or other transactions since trial balance in total for each group from date of trial balance to end of month. Large telephone companies use a similar billing method called the Rotation Billing System. Generally, public utilities credit all cash receipts, regardless of nature, to accounts receivable. This means that every remitter will have an account, resulting in an improved and more complete system.

Accounts Payable Ledgers—Generally, public utilities debit all cash disbursements (payrolls and dividends in total only) to Accounts Payable. Hence every payee will also have an account.

Continuing Property Record is a detailed plant ledger or inventory of all plant items that are included in the utility plant accounts, shown at "original cost," and showing date of acquisition. This record must agree with the General Ledger account or accounts and the individual items listed therein must be identifiable with the actual physical items of plant by some means of identification.

The Work Order System is sometimes required, when all changes in utility plant must be recorded by means of this system. The system consists of two component parts; the work order estimate and the work in progress record. The work order estimate is primarily the authorization and specification of the work to be done. The work in progress record is a detailed subledger showing all charges and credits with references resulting from the execution of the order. This record must agree with the Construction account or the Retirement Work in Progress account. Upon com-

pletion of the order, the amount is transferred to the proper account and the Work in Progress Record account is closed out. The work order system is also used for repair and maintenance work.

Sundry Subledgers are required to record the prescribed subdivisions of general ledger accounts. When a utility operates several plants, separate subledgers are required for each plant. For accounts with progressive stages of subdivisions, columnar analysis ledgers are generally used. Subledger postings must always show source references. The most important sources of original entry for operating accounts are the periodic plant production reports.

Regulatory commissions usually require that records of public utilities be retained permanently, or until special permission is given for their destruction. The kinds of records or bookkeeping methods are not prescribed. Handwritten records are used for many purposes although machine records and tabulating cards are now widely used.

ACCOUNTING FOR THE RADIO INDUSTRY

By
N. L. Kidd *

Brief Description of Business

Radio broadcasters are engaged primarily in the sale of advertising. The business is basically that of public service in the form of entertainment, education, news, musical culture, and civic service.

Radio broadcasters in creating sales use a local sales force which contacts and sells to local advertisers, and a national representative, usually located in a large city, such as New York for the east coast, Chicago and St. Louis for the central states, and San Francisco for the west coast. The national representative may have offices in several cities throughout the country and is usually associated with national agencies.

These national agencies are large advertising sales organizations that prepare programs, supply the script, and make all necessary arrangements for the national advertisers whose accounts they handle. The representative secures contracts for the station he represents; the agency then collects for the advertising from the advertiser, and pays the radio station directly after deducting its commission.

The national representative who works on a percentage basis with the radio station looks to that station for his earned commission. Stations having network affiliations receive income from the networks, based on contract. These contracts vary, depending on the size and importance of the radio station. A certain number of free commercial hours are given by the station to the network, to compensate for line costs, and other network expenses. After these free hours are deducted from the total commercial hours for the period (usually every four weeks), the balance of commercial time is then paid for by the network on the percentage of national timecard rate agreed upon.

* Treasurer of the Central New York Broadcasting Corporation, Syracuse, New York.

Networks create their own income through their own sales force, their national representative, and the national agencies.

In the business of radio broadcasting, there is no commodity for sale. The only possible inventory is that of supplies and equipment necessary to facilitate operations.

All radio broadcasting stations and networks are licensed without fee and are closely scrutinized and regulated by the Federal Communications Commission. The license is now granted on an annual basis and must be renewed each year. Renewal is contingent on obedience to the Commission's regulations. Licenses are granted to applicants able to show proof of financial responsibility, good character, American citizenship, and proof of necessity. This license is granted only after a hearing before the Commission, after having met with all the aforementioned requirements, and after passing the approval of the engineering department of the Commission.

Theory of Accounts

The theory of accounts in radio broadcasting does not differ radically from that of any other business, except that the alignment of accounts is greatly influenced by the requirement of the preparation of an annual statement of finance, income and expense, and sundry analysis, by the Federal Communications Commission. The accounting system therefore has been designed to provide a direct and an inexpensive means of answering this annual report, and also to eliminate the necessity for costly and time-consuming special analysis. At the same time, special consideration is also given to meet the requirements of the various Federal and state taxes. Up to the present writing there are no special forms of taxation peculiar to radio.

There are many types of ownership of radio broadcasting stations, and with slight elaboration on the accounts enumerated hereafter, this system of accounting is flexible enough to fit any type of ownership.

Sales are broken down into various classifications as shown in the chart of accounts.

Expenses are handled departmentally in five groups, as follows: (1) direct (deductions from income), (2) technical department,

(3) program department, (4) sales department, and (5) general and administrative.

It is necessary to allocate certain items of expense to the various department operating costs, such as power and light, stationery, postage, telephone and telegraph, and freight and express charges. Other items can be directly charged to their proper departments and pertinent accounts. All billing is governed by the daily log sheets which record the various programs and announcements broadcast daily.

The log is kept by the engineers on duty in the control room, and gives a complete record of every program or announcement whether commercial or sustaining that goes on the air. It shows the time each transaction goes on and off the air by hour, minute, and second. It contains the name of the advertiser, the engineer on duty, and the program content, (that is, live talent, transcription, records, etc.). The announcer on duty signs for each time put on the air. Then the classification of the item, such as agricultural, civic, dramatic, classical music, popular music, etc., is indicated by a key letter.

The log constitutes the station's proof of performance and is the record from which the billing is prepared. Postings are made to daily billing sheets for each contract. The billing sheets show the days of the month, and at each billing period, either weekly or monthly, the sales invoices are prepared in accordance with the terms of the contract.

Accounts Required

The accounts used in radio broadcasting have been developed as a result of the necessity of determining information required by the broadcaster and by the annual questionnaire the use of which was made compulsory by the Federal Communications Commission. Inasmuch as the Commission requires that all financial information furnished them be on an accrual basis, all records in radio broadcasting are kept on that basis.

The accounts listed in the chart of accounts represent those recommended for the average broadcasting station. It will be noted that the accounts are numbered in series by categories in the following manner:

Asset accounts	1 to 99	inclusive
Liability accounts	101 to 199	"
Income accounts	201 to 299	"
Direct expense	301 to 399	"
Technical department expenses	401 to 499	"
Program department expenses	501 to 599	"
Sales department expenses	601 to 699	"
General and administrative expenses	701 to 799	"

The assets and liabilities are valued in the normal manner according to accepted accounting procedure. The reserves for depreciation are kept separately under each class of property account because of the direct detail required by the Commission as to cost and depreciation in each classification.

The chart of accounts below is in such order that a balance sheet and statement of income and expense can be taken directly from it in numerical order. The statements themselves are therefore not illustrated.

Chart of Accounts
Assets

Acct. No.	
	Current Assets
1	Cash
2	Petty Cash Fund
3	Accounts Receivable
4	Notes Receivable
5	Other Receivables
6	Reserved for Bad Debts (Credit balance—deduct from receivables)
7	Inventories
	Fixed Assets
25	Land
26	Land Improvements
26A	Reserve for Depreciation—Land Improvements
27	Buildings
27A	Reserve for Depreciation—Buildings
28	Leasehold Improvements
28A	Reserve for Depreciation—Leasehold Improvements
29	Transmitter Equipment
29A	Reserve for Depreciation—Transmitter Equipment
30	Radiating System
30A	Reserve for Depreciation—Radiating System
31	Shortwave Equipment
31A	Reserve for Depreciation—Shortwave Equipment
32	Studio Technical Equipment

Acct. No.	
32A	Reserve for Depreciation—Studio Technical Equipment
33	Studio Furniture and Fixtures
33A	Reserve for Depreciation—Studio Furniture and Fixtures
34	Office Furniture and Fixtures
34A	Reserve for Depreciation—Office Furniture and Fixtures
	Prepaid and Deferred Charges
60	Prepaid Taxes
61	Prepaid Insurance
62	Cash Advances
63	Prepayments—any others
	LIABILITIES
	Current Liabilities
101	Notes Payable
102	Accounts Payable
103	Sales Commissions Payable
104	Accrued Federal Income Tax
105	Accrued Federal Old Age Benefit Tax
106	Accrued Federal Unemployment Insurance Tax
107	Accrued State Unemployment Insurance Tax
108	Accrued State Income and/or Franchise Tax
109	Other Accrued Liabilities
110	Taxes Withheld at Source
	Long Term Indebtedness
125	Mortgages, Bonds, etc., Payable
	Capital—For Corporation
130	Capital Stock—issued
131	Profit and Loss
132	Surplus
	Capital (for individuals and partnerships)
140	Proprietor's or partner's Investment
141	Proprietor's or partner's Withdrawal Account
142	Profit and Loss
	INCOME ACCOUNTS
	Time Sales Income
201	Local Programs
202	Local Announcements
203	National Programs
204	National Announcements
205	Network Programs (an account for each network)

(201–205: separate accounts for day and night business are desirable)

	Other Broadcasting Income
210	Sale of Talent
211	Sale of Special Wire Facilities

Acct. No.	
212	Sales of News Service
213	Sale of Records and Transcriptions
214	Rent of Special Equipment
215	Program Rights and Royalties
	Other Income
220	Recoveries of Bad Debts (previously charged off)
221	Profit on Sale of Fixed Assets

DIRECT EXPENSES

(Deductions from Income)

301	Agency Commissions
302	Cost of Talent Sold—Commercial
303	Special Wire Facilities—Commercial
304	News Service—Commercial
305	Records and Transcriptions—Commercial
306	Other Commercial Program Costs

OPERATING AND OTHER EXPENSES

	Technical Department Expenses
401	Salaries
402	Power and Light
403	Fuel
404	Maintenance and Repair—Buildings and Grounds
405	Maintenance and Repair—Technical Equipment
406	Tubes
407	Transmitter Line
408	Outside Engineering Expense
409	Other Technical Expense
	Program Department Expenses
501	Salaries
502	Maintenance and Repairs—Studios and Nontechnical Equipment
503	Lines and Special Wire Facilities—Sustaining
504	Music, Records and Transcriptions—Sustaining
505	Orchestra—Musicians
506	Talent—Sustaining
507	News Service—Sustaining
508	Royalties and License Fees relating to Program Material
509	Other Program Expense
	Sales Department Expenses
601	Salaries
602	Sales Commissions—Local
603	Sales Commissions—Station Representatives
604	Advertising
605	Sales Promotion
606	Other Sales Expense

GENERAL AND ADMINISTRATIVE EXPENSES

Acct. No.	
701	Salaries
702	Rent
703	Light and Heat
704	Maintenance and Repairs—Office Equipment
705	Travel Expense
706	Telephone and Telegraph
707	Dues and Subscriptions
708	Stationery and Supplies
709	Postage
710	Entertainment
711	Freight and Express Charges
712	Depreciation
713	Amortization of Leasehold Improvements
714	Write-off of Good Will
715	Bad Debts
716	Insurance
717	Legal and Auditing
718	Collection Expense
719	Real Estate Taxes
720	State Unemployment Insurance Tax
721	State Income and/or Franchise Tax
722	Federal Old Age Benefit Tax
723	Federal Unemployment Insurance Tax
724	Federal Income Tax
725	Other Taxes
726	Interest
727	Loss on Sale of Fixed Assets
728	Other General and Administrative Expenses

In many cases it is desirable to show day and night sales separately in accounts 201 to and including 205. The reason for this is that day and night rates are different and separate accounts serve as an indication of the trend of sales. This breakdown enables the management to determine when advertisers are buying at low rates, and pressure can be brought on the sales force to sell the more remunerative spots. Some stations carry more than one network. In these cases it is desirable to record the receipts from each separately.

Accounts 210 to 215 inclusive record the sale of artists and station facilities, all of which are offset by their cost in the 300 accounts, except account 214 which records the income from rental of such items as public address systems, or field measuring equipment.

Bookkeeping Methods

The bookkeeping system for radio broadcasting stations includes the following records, to which postings are made from books of original entry:

The General Ledger controls all other ledgers and records; contains the record of assets, liabilities, capital, and surplus; and the detailed income and expense accounts. The department expense accounts are kept on spread sheets, the columns for the numbered expense accounts cross-footing into the control which is kept to the left.

In small stations all other subsidiary records except accounts receivable are kept in one binder. These include the following: cash receipts, cash disbursements, sales register, vouchers register, and general journal.

The Accounts Receivable may be kept in any standard ledger for such purpose. It contains the usual detailed record of transactions with customers.

The General Journal may be eliminated if the voucher register is used for preparing the closing entries in the form of a final voucher each month.

A Property Ledger containing the items of fixed assets in detail should be kept for insurance purposes, to meet the requirements of the Federal Communications Commission annual report, and as a positive check on the calculation of depreciation as required under the current tax laws.

The Payroll Ledger must meet the requirements of the present social security, unemployment insurance, and wage and hour laws. There are several accepted standard forms on the market that meet these requirements.

Entries to all the above records are made in the usual manner.

ACCOUNTING FOR RAILROADS *

Brief Description of Business

The functions of the railroad industry may be summed up briefly by saying that railroads are engaged in the production and sale of Dependable, all-weather, low-cost mass transportation of freight, passengers, and mail. The extent of the facilities which the industry utilizes in performing its service to the public is tremendous and nation-wide. The railways of the United States represent an investment of more than 26 billion dollars and do a gross business amounting to approximately four billion dollars annually. Railway operations extend over 236,000 miles of railroad, consisting of about 420,000 miles of all track. The railroads and affiliated companies own and operate 46,500 steam and electric locomotives, 47,000 passenger-train cars, 2,040,000 freight train cars, and approximately 12,000 pickup and delivery trucks. More than one million men and women, all skilled in their respective lines of work, are employed in railway operations. It is estimated that more than 33,000 passenger and freight trains are operated daily in the United States.

The railway plant is owned by some 1,400 companies, and more than 200 other companies supply various special types of cars for the movement of particular commodities. Railway operations, however, are so integrated that regardless of plant ownership traffic is expeditiously transported from any point on one company's line to any point on another company's line. This is accomplished through the use of standard gauge track and rolling stock which is freely interchanged between line haul carriers to meet the needs of shippers and receivers of freight.

Theory of Accounts

Railroad operations have been declared by Congress to affect the public interest and have been under regulation of the Interstate Commerce Commission since 1887. In addition the several states,

* Prepared by the staff of the Finance, Accounting, Taxation and Valuation Department of the Association of American Railroads under the direction of E. H. Bunnell, Vice President.

both before and since 1887, have also been active in the field of regulation. In consequence the accounting classifications and the accounting practices prescribed by those classifications have been developed necessarily along lines which permit them to serve both as a guide to regulation and for the purpose of railroad management in its control of the internal affairs of the corporation.

The Interstate Commerce Commission accounting rules prescribed by their Uniform Classification of Accounts have been the product of evolution commencing as early as 1899, followed by the major revisions of 1907, 1910, and 1914. Experience has indicated that radical revisions in the classification cause disturbances in the accounting routine which increase the accounting costs during the change-over period. Since 1914, therefore, modernization has been accomplished by revisions of individual sections of the classification. Proposed changes are constantly being studied and when found worthy of adoption, incorporated in the classification.

Railroad accounting theory differs in several important respects from general commercial accounting. The most important of these is in the railroad accounting for changes in fixed property. Generally, the railroads do not set up depreciation reserves through charges to operating expenses for this class of property, although there is an optional provision in the accounting classification permitting such accruals.* The classification of accounts provides that when a large unit of property, other than land or equipment, for which no depreciation reserves have been provided, is retired and replaced, the book value of the old property is credited to the Investment account and charged to Operating Expenses. In effect, this results in operating expenses absorbing for the period in which the retirement is made the entire loss on superseded property. This loss under ordinary commercial depreciation accounting would have been recognized during the serviceable life of the property. Since railroad accounting deals with a large number of units of property, however, the losses thus absorbed in operating expenses in any one year are not disproportionate. In practice, there is a tendency for

* Note.—Effective January 1, 1943, depreciation accounting on fixed property, exclusive of the track structure, has become mandatory; and in the future, charges spreading the current loss over the serviceable life of the property will be made and charges to profit and loss for property not replaced will no longer be made except in special circumstances.

the losses to spread themselves over the aggregate serviceable life of all the units involved. Under such accounting it is not necessary to attempt to predict the serviceable life of property when it is first put into service and to estimate the periodic credits to a depreciation reserve which will equal its book value at the time it is retired.

While under present railroad accounting rules operating expenses are charged with the loss in service value for large units of fixed property retired and replaced, when these units are not replaced the classification provides that the loss over and above any accrued depreciation should be charged directly to profit and loss. In such cases where depreciation reserves have not been credited for the particular class of property, operating expenses do not reflect any portion of the loss.

For equipment (locomotive and cars) the railroads are required to accrue depreciation and the accounting for this class of property follows general commercial practice.

A further difference between railroad accounting and commercial accounting is found in the treatment of charges and credits to the Investment account. In accord with general commercial practice, for large units of fixed property and for units of equipment, the railroads credit the Investment account with the book value of the retired property and charge the Investment account with the cost of the new property. For certain designated classes of property, however, notably rails, parts of equipment and parts of what are considered units of fixed property, the classification prescribes what is termed "betterment accounting." Only in cases where railway property is acquired by purchase, merger, consolidation, reorganization, receivership sale or transfer, or otherwise, subsequent to January 1, 1938, is an exception made to the entry of actual money costs to the railroads. In such acquisitions the original cost (or the estimated cost as found by the Bureau of Valuation of the Interstate Commerce Commission) of the transportation property at the time dedicated to public service is entered on the records. The difference between this original cost and the acquisition cost, represented by the cash value (stated value in the case of securities) of the consideration given therefor, is reflected in an asset account, Acquisition Adjustment, which with amounts in the accounts Road and Equipment Property and Improvements on Leased Property is combined in the balance sheet under the caption

"Investment in Transportation Property." In this way, both the original cost of the property and the investment of the present owner is determinable. Railroads emerging from reorganization proceedings will generally have substantial credit balances in the Acquisition Adjustment account. To the extent that there is a credit balance available therein the railroad may, if so authorized upon application to the Commission, use such balance to absorb losses in connection with retirement of property in existence at the date of acquisition which is not replaced. Other charges may be made to the account upon specific approval of the Commission.

One other respect in which railroad accounting differs from general commercial accounting might be noted. Generally, commercial accounts are designed to facilitate cost accounting and costs are developed currently. While the railroad accounts do lend themselves to some extent to cost finding, railroads make no attempt to develop complete unit costs currently. Whenever special cost information is required in connection with rate cases or for other purposes, special studies are made to develop approximate total unit costs.

System of Accounts

For convenience, a description of the accounting practices will be given in detail under (1) investment or capital expenditure accounting; (2) revenue accounting; (3) expense or disbursement accounting; (4) general accounting, including the income, profit and loss, and the general balance sheet accounts; and (5) statistics.

Investment or Capital Expenditure Accounting

Road and Equipment Property is the account in which are lodged the expenditures incurred by the railroad in securing its right of way, building the railroad, and providing the necessary motive power and cars. Owing to the many changes constantly taking place caused by the replacing of property worn out in service, improvements, or other changes, there is a continuous flow of charges and credits to this account. Due to public regulation of rates and fares, the charges and credits to the account are constantly under scrutiny by regulatory commissions and must reflect the actual money cost to the railroad determined under specified rules.

Betterments are defined as "improvements of existing facilities

through the substitution of superior parts for inferior parts retired, such as the substitution of steel-tired wheels for cast wheels under equipment, the application of heavier rail in tracks, and the strengthening of bridges by the substitution of heavier members. The cost chargeable to the accounts of this classification is the excess cost of new parts over the cost at current prices of new parts of the kind retired."

The property acount is subdivided into fifty-two primary accounts grouped under the following general accounts: (1) road, (2) equipment, and (3) general.

1. The primary accounts under general account road may be divided into three classifications: (a) land used for right of way (consisting of many hundreds of individual parcels), (b) the mass accounts—grading, ballast, ties, rails, and other track material—which consist mainly of many units of the same kind, and (c) such structural accounts as single buildings, bridges, wharves, and docks, which function more or less as a single unit.

2. Similar classes of equipment are grouped under the primary equipment accounts. For example, under locomotives are included freight, passenger, and switching locomotives. Under freight cars are included gondola cars, hopper cars, box cars, refrigerator cars, etc.

3. The general accounts include those expenditures incurred which are not readily distributable among the other accounts, such as overhead, organization, or legal expenses incurred in the construction or extension of a railroad, including interest paid during the construction period.

Land and equipment retirements are accounted for by writing them out of the accounts at their book value. The difference between the amount realized and the book value of land disposed of is debited or credited as appropriate to the Profit and Loss account. Credits for equipment retirements are handled through the Equipment Depreciation Reserve account. Special rules are provided for accounting for equipment converted from one class to another and also for repairs to structural property which constitute the major portion of its value when renewed.

During the early periods of railroad construction no uniform rules existed and actual detailed records for much of the property then constructed could never be located. The lack of uniform ac-

counting in reorganizations and mergers added to the belief in the unreliability of the book investment in the property. It was because of this that in 1913 Congress passed the Valuation Act requiring that the Interstate Commerce Commission inventory all railroad property in order to test the accuracy of the Railroad Investment account. The result of the inventory demonstrated that in the aggregate the investment accounts reflected the true state of facts, although in the case of individual railroads there was an understatement or an overstatement. These inventories are maintained currently and the railroads report the annual changes in their property, units, quantities, and costs to the Interstate Commerce Commission.

Revenue Accounting

Railroad revenue accounting is a specialized field in itself. Intimate knowledge is required concerning railroad tariffs, commodity classifications, routing guides, division sheets (specifying the proportion each railroad receives from joint rates); and practices involving incidental operations, such as switching, transit stopovers and contracts for joint use of facilities. The revenue from shipments involving through billing over a number of railroads must be audited and then apportioned to the lines participating in the movements in accordance with agreements entered into between those carriers. As each shipment or journey is a separate transaction, the tremendous volume of accounting details can readily be appreciated.

The revenue accounts are as follows, the general accounts being shown in Roman numerals and the primary accounts in Arabic numerals:

I. Transportation—Rail Line
- 101 Freight
- 102 Passenger
- 103 Excess baggage
- 104 Sleeping car
- 105 Parlor and chair car
- 106 Mail
- 107 Express
- 108 Other passenger train
- 109 Milk
- 110 Switching
- 113 Water transfers—Freight

114 Water transfers—Passenger
115 Water transfers—Vehicles and livestock
116 Water transfers—Other

II. Transportation—Water Line
121 Freight
122 Passenger
123 Excess baggage
124 Other passenger service
125 Mail
126 Express
127 Special service
128 Other

III. Incidental
131 Dining and buffet
132 Hotel and restaurant
133 Station, train, and boat privileges
134 Parcel room
135 Storage—Freight
136 Storage—Baggage
137 Demurrage
138 Telegraph and telephone
139 Grain elevator
140 Stockyard
141 Power
142 Rents of buildings and other property
143 Miscellaneous

IV. Joint Facility
151 Joint facility—Cr.
152 Joint facility—Dr.

The above accounts are designed to show the amounts which the carrier is entitled to receive from each phase of transportation operations. In order that each month's accounts may include the full amount of revenue, they are kept on an accrual basis. Estimates are permitted in order to accomplish this, such estimates being charged to a suspense account which is adjusted when the true facts are known.

The movement of traffic groups itself into two categories, local and interline. Local business originates and terminates on the same railroad. Interline traffic originates on one railroad and may pass over several intermediate railroads and finally terminate on another railroad. Rules adopted by the railroads, which are mandatory on all, govern interline transactions and place upon the terminating carrier the task of performing the initial accounting. This method involves the determination of the proper amount due from

the shipper for freight charges, and the apportionment of the revenue among the several railroads on a previously agreed basis recorded on division sheets. Each participating carrier is furnished a monthly statement which shows the amount due to or receivable from it, depending on whether the shipment moved with the freight charges collect or prepaid. These statements must be furnished by the 20th of the month following that in which the shipment moved, and balances are settled by draft on the 25th.

The accounting for passenger receipts is initially performed by the originating lines, as the passenger business is on a prepaid basis. The ticket stubs lifted by each railroad form a basis for checking the account rendered. The initial setting up of the interline accounts for verification, and final settlement necessitates a well trained force.

The mandatory accounting rules referred to set up a procedure for handling of overcharges and undercharges, loss and damage, and a time limit within which to take action for errors and omissions. To facilitate the accounting, the use of statements of differences and correction accounts is utilized.

Operating Expenses

These accounts are designed to show the expenses incurred in furnishing transportation services, including the expenses of maintaining the plant used in the service and accessory services. The seven general accounts are as follows: (1) maintenance of way and structures, (2) maintenance of equipment, (3) traffic, (4) transportation—rail line, (5) transportation—water line, (6) miscellaneous operations, and (7) general.

The above seven general accounts are further subdivided into 146 primary accounts. This segregation distributes the operating expenses into logical groups suitable for managerial purposes as an aid to exercising control over expenditures. Thus maintenance of roadway and equipment accounts include the cost of repairs and of replacing parts, and the cost of removing incumbrances, such as snow and ice. A separate roadway account has been provided in which to include monthly depreciation charges, representing accruals for the ultimate service loss of such property when it is finally retired. The rates and depreciation base used are subject to the

approval of the Interstate Commerce Commission. Similarly for equipment, the carriers make monthly charges to the depreciation accounts based on the book value of equipment and using rates of depreciation deemed necessary by the carrier, but subject to final approval of the Interstate Commerce Commission.

The accounts under general account Traffic (3), include the expenses incurred by solicitors in securing business, advertising and the cost of publishing tariffs and time tables. General account Transportation—rail line (4), is the largest of this group of expenses, both in number of primary accounts and expenditures. It includes wages paid the engine and train service employees, fuel and power for operating trains, supplies, loss and damage, and injuries. The accounts grouped under General (7), include the salaries and expenses of officers and clerks and those general administrative expenses necessary for the proper functioning of the railroad. A separate group of accounts is provided in which to record the expenses incurred for property used jointly with other railroads, such as tracks, bridges, yards, and stations.

Railroad operations include not only functions relating to train movements, but also a large group of what might be termed servicing facilities—gravel and sand pits, quarries, tie-treating plants, power plants, transmission and distribution systems, shops, material storehouses, and stationery stores. The expenses incurred in connection with these facilities are handled through clearing accounts which are closed out currently into those primary accounts affected, when information upon which a proper distribution can be made is available.

Income Accounts

Income accounts are defined as "those designed to show, as nearly as practicable, for each fiscal period, the total amount of money that a carrier becomes entitled to receive for services rendered, the returns accrued upon investments, the accrued costs paid or payable for the services rendered by it, the losses sustained by it, the amounts accrued for taxes, for use of moneys, and for use of properties of others, and the appropriations made from income during the period." It is provided that the net balance of income (or loss) shall be carried to Profit and Loss.

The income accounts have been grouped into statement form in

a manner prescribed by the Interstate Commerce Commission, for the purpose of securing uniformity in reporting and of making comparisons between railroads. In order that the accounts may be stated on a current basis, the carrier accrues anticipated unaudited items of income offsetting entries being made to the balance sheet accounts Unadjusted Debits or Unadjusted Credits. Provision is also made for the inclusion of delayed items, not taken into the accounts, which occurred prior to the current year. The form of the income statement is as follows:

Note. The classified form of income statement is designed to show the financial changes resulting from transportation operations and other business of the accounting company during any specified period.

I. Operating Income

A	*Railway Operating Income*		
†501	Railway operating revenues	________	
†531	Railway operating expenses	________	
	*Net revenue from railway operations		________
†532	Railway tax accruals		________
	*Railway operating income		________
B	*Rent Income*		
503	Hire of freight cars—Credit balance	________	
504	Rent from locomotives	________	
505	Rent from passenger-train cars........	________	
506	Rent from floating equipment..........	________	
507	Rent from work equipment	________	
508	Joint facility rent income	________	
	Total rent income		________
C	*Rents payable*		
536	Hire of freight cars—Debit balance	________	
537	Rent for locomotives	________	
538	Rent for passenger-train cars	________	
539	Rent for floating equipment	________	
540	Rent for work equipment	________	
541	Joint facility rents	________	
	Total rents payable		________
	*Net rents		________
	*Net railway operating income		________

† Includes operations of water lines, if any.
* If a loss the amount shall be shown in red.

II. Other Income

502	Revenues from miscellaneous operations	______	
509	Income from lease of road and equipment	______	
510	Miscellaneous rent income	______	
511	Miscellaneous nonoperating physical property	______	
512	Separately operated properties—Profit	______	
513	Dividend income	______	
514	Income from funded securities	______	
515	Income from unfunded securities and accounts	______	
516	Income from sinking and other reserve funds	______	
517	Release of premiums on funded debt	______	
518	Contributions from other companies	______	
519	Miscellaneous income	______	
	Total other income		______
	*Total income		______

III. Miscellaneous Deductions from Income

534	Expenses of miscellaneous operations	______	
535	Taxes on miscellaneous operating property	______	
543	Miscellaneous rents	______	
544	Miscellaneous tax accruals	______	
545	Separately operated properties—Loss	______	
549	Maintenance of investment organization	______	
550	Income transferred to other companies	______	
551	Miscellaneous income charges	______	
	Total miscellaneous deductions		______
	*Income available for fixed charges		______

IV. Fixed Charges

542	Rent for leased roads and equipment	______	
546	Interest on funded debt		
	(a) Fixed interest	______	
547	Interest on unfunded debt	______	
548	Amortization of discount on funded debt	______	
	Total fixed charges		______
	*Income after fixed charges		______

V. CONTINGENT CHARGES

552 Income applied to sinking and other reserve funds
(a) Income applied to capital funds under Governmental authority or other arrangements .... ________
(b) Increments to other special funds required to be retained therein and not subject to withdrawal except for purposes of the funds .... ________
546 Interest on funded debt
(b) Contingent interest .... ________
Total contingent charges .... ________
* Net income after fixed charges and other deductions .... ________

VI. DISPOSITION OF NET INCOME

552 Income applied to sinking and other reserve funds
(c) Appropriations, allotments, and payments of definite amounts to funds from income not includible in 552 (a) or 552 (b) .... ________
553 Dividend appropriations of income.. ________
554 Income appropriated for investment in physical property .... ________
555 Stock discount extinguished through income .... ________
556 Miscellaneous appropriations of income .... ________
Total appropriations of income.... ________
*602 Balance of income transferred to Profit and Loss .... ________

Profit and Loss Accounts

This group of accounts forms the connecting link between the income accounts and general balance sheet account 786, "Earned surplus." They are designed to show the changes in earned surplus during each fiscal period as affected by the balance of the income accounts as reported for the period; by any disposition of earned surplus made at the option of the carrier; and by miscellaneous gains and losses not accounted for elsewhere.

The primary accounts are as follows:

* If a loss the amount shall be shown in red.

I. CREDITS:
601 Credit balance (at beginning of fiscal period)
602 Credit balance transferred from income
607 Miscellaneous credits

II. DEBITS:
611 Debit balance (at beginning of fiscal period)
612 Debit balance transferred from income
613 Surplus applied to sinking and other reserve funds
614 Dividend appropriations of surplus
615 Surplus appropriated for investment in physical property
616 Stock discount extinguished through surplus
618 Miscellaneous appropriations of surplus
621 Miscellaneous debits

BALANCE SHEET

A uniform general balance sheet is prescribed by the accounting rules of the Interstate Commerce Commission. The form required is shown below:

ASSET SIDE

Investments

701 Road and equipment property
702 Improvements on leased property
702½A Acquisition adjustment
Investment in transportation property (sum of accounts 701, 702 and 702½A and 702½B)
702½B Donations and Grants
703 Sinking funds
Total book assets at date (in short column)
Carrier's own issues at date (in short column)
Other assets at date (in long column)
703½ Special reserve funds
704 Deposits in lieu of mortgaged property sold
Total book assets at date (in short column)
Carrier's own issues at date (in short column)
Other assets at date (in long column)
704½ Maintenance funds
705 Miscellaneous physical property
706 Investments in affiliated companies
(a) Stocks
(b) Bonds
(c) Notes
(d) Advances
707 Other investments
(a) Stocks
(b) Bonds
(c) Notes
(d) Advances
(e) Miscellaneous
Total

Current Assets

707½ Reserve for adjustment of investment in securities
708 Cash
709 Temporary cash investments
711 Special deposits
Total book assets at date (in short column)
Carrier's own issues at date (in short column)
Other assets at date (in long column)
712 Loans and bills receivable
713 Traffic and car-service balances—Dr.
714 Net balance receivable from agents and conductors
715 Miscellaneous accounts receivable
716 Material and supplies
717 Interest and dividends receivable
718 Rents receivable
719 Other current assets
Total

Deferred Assets

720 Working fund advances
721 Insurance and other funds
Total book assets at date (in short column)
Carrier's own issues at date (in short column)
Others assets at date (in long column)
722 Other deferred assets
Total

Unadjusted Debits

723 Rents and insurance premiums paid in advance
724 Discount on capital stock
725 Discount on funded debt
726 Property retired—Road
726½ Equipment retired
727 Other unadjusted debits
728 Securities issued or assumed—Unpledged (in short column only)
729 Securities issued or assumed—Pledged (in short column only)
Total

LIABILITY SIDE

Stock

751 Capital stock
Book liability at date (in short column)
Held by or for carrier at date (in short column)
Actually outstanding at date (in long column)
752 Stock liability for conversion
753 Premium on capital stock
Total

Long Term Debt

755 Funded debt unmatured
Book liability at date (in short column)
Held by or for carrier at date (in short column)
Actually outstanding at date (in long column)

755½ Debt in default
756 Receivers' and trustees' securities
756½ Equipment obligations
757 Amounts payable to affiliated companies
(a) Notes
(b) Par value of matured funded debt of affiliated companies
(c) Open accounts
(d) Interest accrued on amounts included in this account
Total

Current Liabilities

758 Loans and bills payable
759 Traffic and car-service balances—Cr.
760 Audited accounts and wage payable
761 Miscellaneous accounts payable
762 Interest matured unpaid
763 Dividends matured unpaid
764 Unmatured interest accrued
765 Unmatured dividends declared
766 Unmatured rents accrued
767 Accrued tax liability
768 Other current liabilities
Total

Deferred Liabilities

769 Liability for provident funds
769½ Interest in default
770 Other deferred liabilities
Total

Unadjusted Credits

772 Premium on funded debt
773 Insurance and casualty reserves
773½ Equalization reserves
774 Maintenance reserves
775½ Accrued amortization of defense projects—Road
776 Accrued depreciation—Road and Equipment
776½ Accrued amortization of defense projects—Equipment
777 Accrued depreciation—Miscellaneous physical property
778 Other unadjusted credits
Total

Surplus

784 Unearned surplus
1. Paid-in surplus. (*In short column only*)
2. Other unearned surplus. (*In short column only*)
785 Appropriated surplus
786 Earned surplus
Total surplus

It will be noted that the general balance sheet is not unlike those used in commercial practice.

Statistics

While the accounts and accounting system provide railroad management with the information necessary for the financial control of expenses, statistics and performance records are necessary to the efficient operation of a railroad and its development to the fullest extent.

In addition to statistics which the railroads may prepare for their own purposes, the Interstate Commerce Commission requires the railroads to compile and report certain statistical information. These reports are in addition to those required showing the accounting results, and include the following:

1. A monthly report of freight traffic handled expressed in tons and revenue and classified as between 157 commodity classes.
2. A monthly report of employees' service and compensation which classifies employees according to certain grouping and shows hours of service and compensation of each group.
3. A monthly report of freight train performance showing such information as train miles, locomotive miles, car miles, and ton miles, and developing certain averages from these statistics.
4. A monthly report of passenger train performance similar to (3) above.
5. A monthly report of yard service performance showing such information as yard locomotive switching hours and hours per yard locomotive day.
6. A monthly report of revenue traffic showing tons of freight carried, and passengers carried; and developing such averages as revenue per ton and per ton mile and revenue per passenger and per passenger mile.
7. A monthly report of fuel and power for locomotives.
8. A monthly report of motive power and car equipment.
9. A monthly report showing the separation of passenger traffic between that in coach and that in reserved space cars.

Bookkeeping Methods

The large roads generally use the latest mechanical methods of bookkeeping in all departments where economy can be effected through their use. Punch-card machines are used extensively for both assembling and summarizing revenue and disbursement accounting. These machines are also used in many cases for payroll and for material and supply accounting. Most of the large railroads have found their use advantageous in the preparation of certain statistical data which is required by the Interstate Commerce Commission or by management.

The railroads must have a form of general ledger, a journal, and a cash book similar in purpose to any other commercial enter-

prise. The principal difference between railroad books of account and those generally used is that the large railroads, because of the diversity and extent of their business, use many subledgers for recording specific information which is entered in the general ledger in summary form for control purposes.

The basic revenue accounting records differ from those of other commercial enterprises in that the latter must employ some form of billing for sales. The railroads' basic record for freight revenue is the bill of lading, which is the contract between the shipper and the railroad covering the terms of transportation service. From data on the bill of lading the so-called freight waybill is prepared. The information shown on the freight waybill is used both for transportation purposes (to route the traffic in accordance with shipper instructions and to accord the traffic any special handling that may be necessary) and for accounting purposes (to collect proper charges from the shipper and to apportion the amount collected to the railroads participating in the movement of the shipment). For passenger service, records of tickets sold and cash fares collected serve similar accounting purposes. From these basic records in the case of freight and passenger service the entries affecting the various revenue accounts are prepared, and at the same time the amounts due to and collectible from other railroads are determined.

Generally, railroad disbursement accounting does not differ materially from other industries, except to the extent that manufacturing enterprises may have cost accounting systems. As previously pointed out, railroad accounts are not designed primarily for cost accounting purposes, and the determination of cost, when necessary, is accomplished through analysis of the accounts and statistics. Voucher systems are in use on all large roads for controlling accounts payable. Material and stores accounting and control is similar to that employed by other industry. For this purpose some railroads are using a centralized control for all material and supplies, while others depend on a control for each supply point. Railroad payroll accounting may be somewhat complicated by the number of different classifications of employees and the different bases used in determining wages.

ACCOUNTING FOR REAL ESTATE AND INSURANCE AGENTS*

By

JOEL HUNTER, JR.**

BRIEF DESCRIPTION OF BUSINESS

Real estate and insurance agents represent the owners of real estate in buying, selling, mortgaging, and insuring real estate and in taking care of the details of the management of property. Organizations vary in scope of activities; it is not infrequent that an agency will specialize in one or two types of service. The principal activities are described below.

Sales

The agent acts for the seller in disposing of real estate. He lists the property for sale and endeavors to find a purchaser. His representation of the seller may be under a contract which gives him the exclusive selling privileges for a specified period of time. The agent's compensation is a percentage of the selling price, which is determined by local custom, the nature of the property itself, and the agreement with the seller. A real estate agent may also be retained by a prospective purchaser of real property to locate or arrange for the acquisition of a particular parcel. In such a case the seller, nevertheless, pays the commission. In some instances a smaller parcel may be taken in part payment of the purchase price of a larger piece of property, the difference being settled in cash or notes. Real estate agents are entitled to commissions based on the selling price of each of the parcels, the commission in every case being collected from the grantor.

* This article applies to communities in which fire and casualty insurance is handled on the "agency plan." There are differences in practice in those localities where independent brokers operate in place of local agents.

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Rentals

An important aspect of the work of the real estate agent is securing tenants for property owners. As in the case of sales of real estate, agents may be retained by prospective tenants. In all cases the property owner pays the agent's fee, which may consist of a procurement fee for the collection of successive monthly or other periodical rent payments and for supervising the execution of the lease. Both procurement and collection commissions and fees are usually stated in terms of a percentage of the rental.

Property Management

An extension of the service of renting real estate is called property management, under which arrangement the agent undertakes not only to collect the rentals but also to supervise more or less completely the maintenance and operation of property. In such instances the agent may, in behalf of the property owner, employ janitors, porters, elevator operators, building superintendents, or other personnel. He may also have blanket authority to contract for redecorating and other minor repairs, and in some instances major repairs. He may be directed to place fire, casualty, and liability insurance, to pay premiums out of rent collections, and to pay taxes, special improvement assessments, and interest and principal of mortgage loans. The agent may act in this manner for joint owners, and may distribute net proceeds of rentals monthly, or at other periodic intervals, to any number of persons according to their stipulated shares, as in the case of heirs of an estate. Agents may act as receivers or in behalf of receivers, trustees, or personal representatives of deceased persons.

The compensation of the agent for complete property management is usually stated in a special contract which also states his duties and authority. With regard to large apartment houses or office buildings, the regular percentage received for rental commission may be sufficient to induce the agent to accept complete property management without any additional charge. In many instances agents receive fees for supervising repairs or for other expenditures in behalf of property owners, whether or not a full management contract is in effect. Such fees may amount to 10 per cent or more of the amount of the expenditure.

Loans

Real estate agents also serve as brokers in placing mortgage loans on property. As a general rule the property owner or borrower pays the agent's commission. Agents rarely make loans as principal; more frequently they simply arrange the terms of loans to be effected directly between the parties.

Insurance

Real estate agents are frequently equipped to procure fire and casualty insurance policies for their customers and the general public. They may be known to the insurance industry as local agents or brokers. Not only policies relating to real estate, such as fire, windstorm, owners', or tenants' public liability, use, and occupancy insurance, but also automobile fire and theft, public liability, personal property burglary, and many other types of fire and casualty contracts are sold. The premium rates for most fire and casualty insurance are fixed and are identical for all companies. The premiums of fire policies are determined by engineering studies based on construction, exposure, protection facilities available, and other factors. Casualty insurance premiums are generally based upon combined experience of the companies. Since the premium charges are fixed and the business is highly competitive, a large part of it is placed in connection with other transactions or by reason of friendship or business connection. For this reason the real estate business is a feeder for insurance business.

Commissions which are allowed by insurance companies to agents procuring policies are also fixed, varying according to the type of policy, locality, and other considerations. The agent is responsible for collecting the premium from the assured and remitting the net premium (gross premium less agent's commission) to the insurance company. The agent may cancel the policy for nonpayment of premium, in which case he is required to remit only the prorata net premium to the insurance company. If the policy is cancelled at the instance of the assured the so-called short-rate cancellation schedule is employed, to effect a charge for the insurance for the time in force considerably greater than the fraction of the premium of which the time in force is the numerator and the policy term the denominator, particularly if the policy is cancelled soon after it is issued.

Miscellaneous

A description of the real estate business would not be complete without reference to the strong trade association known as the National Association of Real Estate Boards. The real estate boards are organized locally in important business communities and promulgate uniform rates of commission or fees applicable to various kinds of services. Ordinarily the insurance business carried on by individual members is outside the scope of a real estate board's activities and is not governed by its rules. All members bind themselves to observe the code of ethics or practices and the commission scale adopted by their local board. In some communities members also agree that all appraisals of real estate are to be made under the auspices and supervision of the board. Where this is done applications for appraisals are made directly to the board and individual members are selected to make the appraisal. The appraisal fee is paid to the board which, in turn, pays a portion to members making appraisals, retaining the balance for board expenses. In addition to this source of income, dues are sometimes assessed.

Real estate business and insurance agency business are not invariably carried on in combination. Either may be a side line of merchants, lawyers, or banks. Particularly is this true in small cities. In populous communities an insurance agency is frequently operated by or in conjunction with a feeder business of another kind, for example, an automobile finance company. Irrespective of the combination, the accounts of the insurance and real estate agents serve the same purposes, and are generally maintained as described herein.

Theory of Accounts

The primary purpose of the accounting records of real estate and insurance agents is to exhibit at all times the status of the accounts of the person for whom the agent acts, whether landlord, tenant, purchaser, or seller of property or of insurance company. Incidental to the primary purpose is the necessity of determining the status of the agent's own assets, liabilities, capital, and elements of profit and loss. Relatively large amounts of cash, either proceeds of sales, rentals, or other transactions, must clear through the office of the agent. It is the responsibility of the agent at all

times to be in a position to show funds collected for the account of a particular person, rentals, insurance premiums, or other amounts due but not yet collected, with identification of the principal involved and adequate records in support of all expenditures made to or for the account of certain landlords.

With respect to sales and loan activities, which are similar, there is not a considerable accounting problem. As a rule the individual complete record of details of each such transaction is available, and if any portion of the selling price or loan proceeds clears through the office of the agent (as distinguished from settlements made directly between the parties), a complete record is required of all such payments showing their relation to the whole transaction.

With respect to rentals and property management, the accounting is more difficult because of the relatively large number of transactions and persons affected. A particular agent may represent five hundred or more landlords or property owners. Each of these landlords may have from one to several hundred renting units. Many variations in the terms of leases or management contracts require reliable records in order that the agent may perform in each case according to contract. Percentage leases under which the rental is, in whole or in part, dependent upon the volume of tenant's sales, became popular during the business depression and have added to the complication.

Some features tend to simplify accounts. Usually rentals are fixed sums payable at fixed intervals. The regularity of transactions is of great practical assistance, in both the design and the operation of accounting systems. The system used in property management is described in detail elsewhere in this book under "Real Estate—Building Management."

Real estate agents are usually regarded as agents of property owners, but they, nevertheless, have a duty to tenants and other parties with whom they deal. In the case of tenants, it is necessary for the agent to maintain records of the status of rental payments of each tenant at all times. This plan is essential in order fully to protect the landlords' as well as the tenants' interest. The real estate agent must maintain dual records of transactions under each lease contract, one for landlords and another for tenants. Duality

may not be complete; for example, a single ledger record maintained according to landlords, may be supplemented with an indexing system to make this information available according to the names of individual tenants. Even in a small agency the accounts are continually turning over, new tenants are coming in and old ones going out; new properties are listed and others withdrawn. In order properly to service vacancies, adequate records must be available several weeks or months in advance showing when a vacancy will occur. Records must also be maintained by location or street address since by custom property is frequently identified in this manner.

The status of landlords' and other special funds in the hands of real estate and insurance agencies is such that good business practice requires segregation of those funds which are the property of the agent himself. Owners of large properties having numerous tenants, perhaps under full management contract whereunder the agent makes many expenditures, are frequently cleared through a special bank account devoted to a single landlord. Regulations of the Home Owner's Loan Corporation and of many of the life insurance companies for whom agents have acted in property renting and management, usually require separate bank accounts to be carried for such property owners. Separate series of checks are used and the bank accounts are entirely independent of all other bank accounts maintained by the agent. It is good practice for the agent to deposit intact the rent proceeds collected by him in a separate account. Manifestly, it is impracticable for single bank accounts to be maintained for all property owners, and funds of a number of property owners are usually placed together in a single Landlords' account. Only those landlords whose business or contracts do not require separate bank accounts are included therein.

The insurance department of the business keeps its records separately from the rent business, in order to show both the status of accounts with the assureds, and transactions with insurance companies. Insurance agency accounting differs in theory from real estate agency accounting. Proceeds of rentals are not ordinarily paid over to landlords until collection is effected from the tenant. On the contrary, the collection of the account against the assured is entirely independent of the time of remittance to the insurance company of the net premium. Insofar as the insurance aspect of

the business is concerned, it is, therefore, only necessary to maintain records closely similar to the ordinary records of accounts receivable and accounts payable with supporting documents and journals.

Accounts Required

Cash on Deposit and on Hand

Separate accounts of cash on deposit must be maintained, taking account of the equities of other persons therein. Rental proceeds should be carried in bank accounts separated from cash which is the unqualified property of the agent. It is also good practice to keep separate the proceeds of collection of insurance accounts receivable. The number of bank accounts may therefore be large. Despite the necessity for separate bank accounts a single Cash on Hand account will suffice if adequate collection records are available.

Amounts Due Landlords

Relatively large cash balances will be maintained by the agent of which substantial portions may be the property of particular property owners or customers. Good practice seems to require that the agent consider the balance due landlords an offset to the gross amounts of his cash balances. In effect, the agent will consider only as much cash available for general purposes as remains after deducting amounts due landlords from Total Cash on Deposit and on Hand. An account is required for each landlord, showing all transactions for his account in detail. Prompt remittances by the agent will tend to keep landlords' accounts in balance.

Accounts Receivable Insurance Premiums

The cancellation privilege which the agent has for nonpayment of premiums by the assured is of value in mitigating bad debt losses. If the agent exercises ordinary care in passing on credits and does not allow accounts to remain outstanding without, at least, adequate partial payments, he should be able to cancel those policies for which he cannot collect premiums before any loss becomes appreciable. As in the case of other accounts receivable, an account is required for each assured.

THE A B C REALTY AND INSURANCE AGENCY
Balance Sheet at Dec. 31, 19__

Current Assets:		
Cash on deposit and on hand	$50,000.00	
Deduct: Amount thereof held for landlords	20,000.00	
Net free cash balances		$ 30,000.00
Accounts receivable, insurance premiums (less reserve $400.00 for uncollectables)		6,000.00
Advances for account of customers		2,000.00
Other current receivables		1,000.00
Total current assets		39,000.00
Investments:		
Mortgages and notes receivable	25,000.00	
Advances to employees	5,000.00	
Real Estate	10,000.00	
Unamortized portion of lease commissions purchased	3,000.00	
Total investments		43,000.00
Furniture and Equipment:		
Office furniture, fixtures, and machinery; auto and truck at cost	15,000.00	
Deduct: Reserve for depreciation	6,000.00	
Total furniture and equipment		9,000.00
Deferred Charges, Etc.:		
Office supplies, postage and revenue stamps on hand, accrued interest, unexpired insurance, etc.		450.00
Good Will:		
Excess of par value of capital stock issued over net tangible assets, at appraised values, acquired in exchange therefor at organization		119,500.00
Total assets		$210,950.00

Current Liabilities:			
Balances held for landlords (deducted from cash, contra)		$20,000.00	
Accounts payable for expenses and supplies			$ 1,500.00
Accounts payable, insurance companies			6,200.00
Credit balances in insurance accounts receivable			50.00
Accrued compensation payable to employees			7,500.00
Customers special funds and deposits			1,000.00
Accrued taxes			9,800.00
Total current liabilities			26,050.00
Capital:			
Capital stock (1600 shares $100. par value; 1500 issued for net assets of X Y Z Corp., including goodwill. 100 sold for cash at par, 19__)		160,000.00	
Surplus:			
Balance January 1, 19__	$25,935.00		
Add: Net profit for year 19__	24,965.00		
Deduct: Dividends paid June & Dec. 1	26,000.00		
Balance December 31, 19__		24,900.00	
Total capital			184,900.00
Total liabilities and capital			$210,950.00

Advances for Accounts of Customers

Agents may advance funds to landlords or other customers for the payment of repair charges, for taxes, or for other purposes. Such advances are purely voluntary and are not ordinarily required to be made. As a rule the agent is protected by anticipated future rent collections. In certain instances agents have lost such advances by vacancies and removal of properties from their care occurring before collection of rentals. Any debit balances appearing in landlords' accounts at the end of the fiscal period constitute advances.

Mortgages and Notes Receivable

The typical agent will accumulate a variety of mortgages, purchase-money notes, and miscellaneous notes receivable. Sellers of property frequently succeed in persuading agents to accept a certain part of the purchase money obligations in payment of the agent's commission. Upon occasion agents may lend money directly to owners of property in return for business concessions as an accommodation, and in connection with pending sales or other transactions in which the agent may have an interest.

Due Employees

Sales department employees are usually compensated by receiving a commission computed on the basis of the entire commission received by the agent. As in the case of other businesses operating on such a basis, it frequently becomes necessary, or advisable, to advance substantial sums to the sales staff. Under the circumstances surrounding this asset, collection is frequently a matter of doubt. In fact it is sometimes urged as the most conservative policy that all such advances be charged to profit and loss at the close of the fiscal period. For purposes of maintaining a record of future transactions with the salesmen, the amount charged off may be restored on the first day of the succeeding fiscal period. This amounts to placing such advances upon a cash basis.

Real Estate

It is not ordinarily the practice of real estate agents to acquire property for their own account. Should this happen in isolated cases, the account would follow general practice.

Unamortized Portion of Lease Commissions Purchased

After a lease contract has been negotiated, by the terms of the contract the agent is generally granted a property right therein to the amount of his commission receivable under the lease. Large sums are involved where agencies have been actively engaged in the rent business for a period of years and have accumulated many long-term leases with relatively high rentals. Commissions receivable by agents are frequently sold to other agents, the purchase price being discounted both for the time factor and the uncertainty of performance by landlord and tenant. In theory, the purchase price of such commissions receivable should be capitalized and written off over the remaining term of the leases. For this purpose of amortization it is necessary to divide each commission payment received and credit a part to unamortized cost and the remainder to income. Some agents prefer to credit the entire proceeds of commission received to the cost and take nothing into income until the cost is recovered in this manner. The latter procedure has practical advantages, in spite of being theoretically improper, and is lent support by the doubt of full future performance by landlord and tenant. Rentals must actually be paid before the agent is entitled to his commission.

Accounts Payable for Expenses and Supplies

The trade accounts payable may be maintained with a voucher system or as open accounts. As a general matter accounts payable are not of great importance in the real estate and insurance agents business.

Accounts Payable, Insurance Companies

It is necessary for the agent to maintain ledger accounts with the insurance companies which he represents. A particular agent may have contracts to represent from two to twenty-four different companies. Each company account is credited at the close of the month with the amount of net premiums (gross premiums less agent's commission) due the company from business written by the agent during the month. Company accounts are charged with prorata net premiums on policies cancelled by the agent or company during the month. The short-rate cancellation basis is used for policies cancelled by the assured. Sources of these entries are policy

Financial Statements

THE A B C REALTY AND INSURANCE AGENCY

Statement of Profit and Loss
Year ended Dec. 31, 19___

	Combined	Sales	Rent	Departments: Property Management	The "M" Office Bldg.	Loan	Insurance	Non-Departmental
Operating Income:								
Commissions earned	$178,000.00	$50,000.00	$60,000.00	$25,000.00	$18,000.00	$12,000.00	$10,000.00	$ 3,000.00
Bad debt recoveries	600 00	25.00	100.00				375.00	100.00
Total	178,600 00	50,025 00	60,100.00	25,000 00	18,000.00	12,000.00	10,375.00	3,100.00
Operating Expenses:								
Commissions paid	40,500 00	22,000 00	14,000 00	1,500 00	300.00	200.00	2,500.00	
Salaries, salesmen and agents	21,500 00		10,000.00	4,000.00	3,000 00	2,000.00	2,500.00	
Salaries, clerical	16,300 00	3,000 00	5,000.00	4,000.00	1,600.00	1,500.00	1,200.00	
Salaries, executive	33,000 00	10,000 00	7,500.00	7,500.00	2,500.00	2,500.00	3,000.00	
Salaries, other	4,550 00	150 00	150.00	3,000 00	600.00	600.00	50.00	
Advertising	5,970 00	3,000.00	500.00	1,800 00	100.00	500.00	70.00	
Office rent	6,000 00	2,000.00	1,500.00	1,500 00	250.00	250.00	500.00	
Office supplies and expenses	2,100 00	400 00	850 00	550.00	50.00	150 00	100.00	
Telephone and telegraph	2,000 00	1,000.00	300 00	400.00	100 00	80.00	120.00	
Transportation	1,700.00	700.00	400.00	600 00				
Postage	990 00	250 00	500.00	100.00	25 00	15 00	100.00	
Insurance expense	550 00	200 00	100.00	100.00	55 00	45.00	50.00	
Taxes on payrolls	2,060.00	600 00	500.00	300 00	240.00	200.00	220.00	
Licenses, fees and property taxes	1,250.00	500 00	250.00	150 00		250.00	100.00	
Legal and auditing	2,200 00	400 00	800 00	400.00	200 00	100.00	300.00	
Unclassified expenses	800.00	250.00	250 00	150 00	25.00	75.00	50.00	
Loss on employees accounts	2,150 00	2,000.00					150.00	
Bad debts	985.00	100 00	250 00	50 00		25.00	560.00	
Depreciation	880 00	600.00	150 00	50 00	25.00	25.00	30 00	
Totals	145,485 00	47,150 00	43,000.00	26,150.00	9,070 00	8,515.00	11,600.00	
Net Operating Income	33,115 00	$ 2,875 00	$17,100.00	$(1,150 00)	$ 8,930.00	$ 3,485.00	$(1,225.00)	$ 3,100.00
Other Income:								
Interest income	1,200.00							
Net income from real estate owned	600.00							
Total	34,915.00							
Deductions from Income:								
Life insurance premiums	1,500.00							
Discount and exchange	100.00							
Total	1,600.00							
Net Profit Before Income Taxes	33,315.00							
Provision for Federal & State Income Taxes	8,350.00							
Net Profit for Year	$ 24,965 00							

registers whereon are listed all policies issued by the agent or cancelled during the month. The policy register is a carbon copy of the Account Current, which is mailed to the company by the agent each month. In practice, a net debit or credit figure is determined by offsetting cancellations against new business, and only the net figure is entered in the company account payable. Other debits in the accounts are payments of license fees or other charges by the agent as authorized by and for the account of the company, and remittances of net premiums by the agent to the company.

Accrued Compensation Payable to Employees

Since much business of an agent is usually handled by its employees on a commission basis of compensation, it is necessary for the agent to have accounts with such employees setting out commission receivable and paid. In the event the agency receives a note or other property in payment of commission, as a matter of policy it may not wish to permit withdrawal of any employee's shares of such commission until collection of the note or liquidation of the property. As a result, it may be necessary to accumulate relatively substantial amounts in blocked credits to employees, the withdrawal of which by the employees is made contingent upon the occurrence of the other event.

Income and Expense Accounts

The nominal accounts required by real estate and insurance agents are those which might be expected from the character of the business, and involve no particularly novel principles. The income accounts are usually entitled commissions, and separate income accounts are carried for each department or phase of activity. It is desirable furthermore to divide expenses by departments or activities for the purpose of stating profit and loss results in these terms. Expense distribution may be accomplished by any of the means usually employed for this purpose. A certain amount of distribution of overhead expense is sometimes necessary, but compensation of employees and the other important expenses may be allocated directly to the department or activity, in most instances without resorting to arbitrary apportionment.

The volume of business handled by insurance agents is frequently understood to mean the gross premiums and not the gross

income of the agent. The commission rates may vary to such an extent that gross premiums are of little significance as related to net profits of the agent. Since by custom these statistics have gained a certain standing, many agents keep memorandum accounts of total gross business handled. When for some reason the data are regularly needed, it is better practice to incorporate the accounts in the general ledger. This plan will require two new accounts: one, corresponding to Sales in a mercantile business, entitled Gross Premiums, is credited to offset charges to insurance customers' accounts, and the other, entitled Net Premiums, will be charged in the amount credited to insurance company accounts. Agent's commissions earned are determined by offsetting Net Premiums account balances against the balance in Gross Premiums.

Bookkeeping Methods

The Landlord's Ledger contains the account maintained for each property owner, and details of each item of receipt and expenditure applicable to the owner are entered therein. The credit side shows amounts of rentals collected by name of tenant and rental period. On the basis of this record, landlord's statements showing details of these transactions are prepared together with checks for net amounts due landlords.

The Tenants' Ledger records a detailed account of the status of each tenant's rent account. In lieu of a tenants' ledger, the record which appears in the landlords' ledger may be made available by using cross-index cards with tenants' names arranged alphabetically. Rent bills are prepared from the tenants' ledger and it is used as a guide in making collections. The status of each tenant as shown by the tenants' ledger must agree with his status on the landlords' ledger.

The Accounts Current and Policy Registers may be prepared on forms supplied by the companies. It is better practice for the agency to use its own forms and retain and bind the carbon copies or policy registers in a loose leaf binder. This record may then serve as a convenient book of original entry both for accounts receivable and accounts payable of the insurance department.

Accounts Payable Insurance Companies Ledger is desirable for the detail accounts with insurance companies in the event a sufficient

number is represented. If only two or three companies are involved each may be given a separate account in the general ledger.

The Accounts Receivable Insurance Ledger carries customers insurance accounts and is used in preparing monthly statements and making collections, and serves as a typical receivables ledger. Reference to particular policies by company name and number should be made for each entry originating in the policy register. It is also desirable to include a brief description of the nature of coverage and amount.

The Loan Ledger maintains satistical record of the status of each loan serviced or supervised by the agency. This record may or may not be a subsidiary ledger in the strict and ordinary sense, depending usually on whether the checks of customers or of the agent are sent to mortgagees.

Sales Deposit Ledger and Sales Record are maintained in the event that there is any considerable volume of sales business. If earnest money is required to be deposited by prospective purchasers who sign a contract to purchase real estate, such deposit must be held until the completion of the sale, at which time it is applied on the purchase price. A sales deposit ledger will be useful to remove these accounts from the general ledger. A characteristic of Sales Deposits accounts is activity for a short time followed by complete dormancy. It is good practice to credit all transactions which the office may handle in connection with a particular sale through the Sales Deposit account. The inactive account will then constitute a ledger record of the sale transaction for future reference.

A Salesman's Ledger is used to segregate accounts when a considerable number of salesmen are employed on a commission basis. These accounts will receive credits for all commission earnings and will be charged with advances or withdrawals. If any part of salesmen's credit balances are blocked pending liquidation of other obligations, it is good practice to employ separate accounts for such blocked credits.

In addition to the foregoing, the usual general ledger, general journal, and other books of original entry will be maintained. The general ledger will contain control accounts for each of the subsidiary ledgers and for each of the bank accounts. The usual type of books of original entry are acceptable with the stipulation that the relatively large volume of transactions in the rent business

makes it desirable to employ mechanical laborsaving aids to the greatest extent compatible with efficiency. For example, it is usually not necessary to enter in the cash receipts books each item of receipts in detail, so long as unit media in the form of duplicate rent receipts or mail tickets are available for posting as required. The cash receipts book then becomes merely a device to accumulate control figures for bank debits and credits to landlords' or other control accounts. The original function of the cash receipts journal is, therefore, transformed to and performed in part by the duplicate rent receipt. A corresponding method of handling disbursements involves the use of carbon copies of checks as the posting medium. The cash disbursements book then receives daily total entries classified according to bank and other control accounts.

ACCOUNTING FOR REAL ESTATE—LAND

By

LEONARD LEVINE *

BRIEF DESCRIPTION OF BUSINESS

Land, as defined by Webster's Unabridged Dictionary, is any ground, soil, or earth whatsoever regarded as the subject of ownership, as meadows, pastures, etc., and everything annexed to it, whether by nature, as trees, water, etc., or by man, as buildings, fences, etc., extending indefinitely vertically upwards and downwards. In this chapter we shall use the term land as being land exclusive of buildings.

There are many types of land, for example: (1) wild lands (lands that are situated outside of city limits and are considered as part of townships), (2) subdivisions (land that has been subdivided into lots), (3) grants to public utilities, (4) building sites used by business firms, and (5) cemeteries, parking lots, and numerous others.

Acres of land are purchased by the realtor, surveyed, and subdivided into lots. After the land is subdivided, a map is prepared showing the number and location of each lot. Any transaction involving the sale or disposition of a lot or lots should be clearly indicated on the map. Individual markings on the map should reveal the lots on which options have been granted or contracts executed.

Improvements to the land may include grading, leveling, laying of streets, sidewalks, and sewers in suburban development property. The land may also be beautified by the development of lawns and parks. At times the realtor may have to construct one or two model homes in order to expedite the actual development of the property.

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Theory of Accounts

The theory of accounting for a realtor dealing in land may be best explained by an analysis of some of the transactions involved. The transactions that will be discussed are: (1) sales, (2) cost of the property, and (3) repossessions.

Sales

The two types of sales are cash sales and installment sales. In the case of the cash sale, the deed to the property is conveyed to the purchaser as soon as the sale is consummated. The profit on this transaction is deemed earned in the year of the sale. Installment sales may involve a mortgage or a contract. In the case of a sale subject to a mortgage, title is transferred immediately and a failure to meet payments when due may result in the mortgagee's seeking legal redress in court. Usually under all forms of "contracts," the title to the property is transferred when all or a substantial amount of the selling price is paid. Nonfulfillment of the contract by the purchaser may result in a loss of the payments made.

Under the income tax laws in effect the following rules concerning installment sales apply:

1. The initial payment (cash or property payments other than evidences of purchasers indebtedness during the taxable period of sale or disposition of property) must not exceed 30 per cent of the selling price.
2. If the initial payment exceeds 30 per cent and the seller cannot show that the obligations of the purchaser have no fair market value or are worth less than face value, the total profit is reportable in the year of the sale.
3. In the following instances income in not reportable on the installment basis: (a) When the purchasing price is payable in a lump sum in a later year, or (b) When no cash or property payment other than evidence of purchasers indebtedness is received during the first year, even though the purchaser promises to make at least two payments in subsequent years.

The income to be reported on the installment basis is that portion of the total estimated, realized, or realizable profit of the property when completely paid for attaching prorata to the installment payment received in that year. For example, property which costs $50,000.00 is sold for $100,000.00; payment in the first year to be $30,000.00 and the balance to be paid in seven yearly payments. The realizable profit would be $50,000.00; this amount divided by the selling price of $100,000.00 is 50 per cent.

Thus in the first year the reportable profit would be 50 per cent of $30,000.00 or $15,000.00.

It should be borne in mind that income tax laws change and the above rules may be changed under succeeding laws and regulations.

Property Costs

The cost of the property consists of the actual purchase price of the land plus any capital expenditures. All expenses, such as interest, taxes, and legal fees incurred prior to the sale of the land and subsequent to the acquisition of the land are to be capitalized. Any expenses incurred after the sale are to be charged to profit and loss in the year of occurrence. Expenses applying to a period before and after the sale, such as real estate taxes and interest, should be prorated between vendor and vendee. All expenditures for the improvement and beautification of the property are considered capital expenditures.

Repossessions

Under present income tax laws the vendor on the installment basis must report the following:

1. The gain or loss on all installments cancelled by the reacquisition of property because of the default of the vendee (whether title has been retained by the vendor or transferred to the vendee).
2. The gain or loss in connection with the reacquired property. This amount is the difference between the fair market value of the reacquired property (including the fair market value of improvements to the property by the vendee) and the basis of obligations satisfied, discharged, or applied by the vendor (with proper adjustments for any expenses incurred with reference to the reacquisition).

For example, property which cost $50,000.00 is sold for $100,000.00; payment in the first year is to be $30,000.00 and the balance is to be paid in seven yearly payments. At the end of the second year, at which time $40,000.00 had been collected, the vendee defaults and the property is repossessed. The fair market value of the property is $50,000.00 and the vendee's obligations are satisfied. The originally estimated profit of $50,000.00 divided by the contract price of $100,000.00 is the percentage of the payments to be reported as income in any year. Thus, 50 per cent of all payments are reportable as income.

Fair market value of Repossessed Property		$50,000.00
Basis of Surrendered Indebtedness:		
Face Value	$60,000.00	
Less Unrealized Profit	30,000.00	30,000.00
Income to be reported in connection with the Repossession		$20,000.00

In addition, $5000.00 of the $10,000.00 cash received during the second year must be reported as income.

Accounts Required

The Federal income tax regulations require that the realized and unrealized profit for each lot sold be shown separately. Thus, all costs and expenditures should be charged to the subdivision to which they apply in order that they may, in turn, be charged finally to each lot.

Lots or subdivisions are developed separately and therefore require a unit cost system for each lot. Costs covering more than one subdivision, such as, roadways, water system, sewage, and other improvements, are to be allocated as fairly as possible to the respective lots.

A lot register should be kept as an inventory of all the lots in the various subdivisions and should contain the cost and expenditures for each lot, as well as the sales price of those lots which have been sold.

When the land is subdivided into lots, the question of the specific cost of each lot becomes of prime importance. There are many methods of determining this, the chief ones being: (1) division by number of lots, (2) division by frontage, (3) division by area, and (4) division according to the tentative selling price.

Division by Number of Lots

The cost of the property is divided by the total number of lots, thus obtaining an equal cost for each parcel. The main disadvantage of this method is that lots differ in size, structure, and location. This method is therefore inequitable in many cases.

Division by Frontage

This method of determining the cost of the lots is to use the amount of frontage of each lot and divide this into the total cost. This method is sometimes objectionable because no consideration is given to roadways, playgrounds, location, etc.

Division by Area

The total area is computed, after allowing for roadways and playgrounds, and divided into lots. The cost of one foot is determined and the area of each lot is calculated on this basis. This division is at times undesirable because of the amount of time needed to compute the cost of each lot, and the failure to consider location or structure.

Division According to the Tentative Selling Price

This method prorates the costs of parcels according to the tentative selling price and is frequently more equitable and desirable than any of the other methods. The total cost price of all lots divided by their total tentative selling price will equal a fixed or uniform percentage which will be used in calculating the cost of each parcel. Thus, if the percentage of the property costs to the total tentative selling price is 25 per cent, then that percentage will be applied to the selling price of each particular parcel in arriving at the cost of that respective parcel.

It is sometimes difficult to apply a uniform system of accounts to all realtors. Peculiar or special accounts may be included in the records of some realtors, that will not be found in the records of others. The most frequent accounts used and some special accounts will be covered in the following classification.

500 Income
- 501 Profit on Sale of Parcels
- 502 Cancellation Profits
- 503 Realized Profits
- 504 Unrealized Profits
- 505 Income from Options
- 506 Rental Income
- 507 Commissions Earned
- 508 Interest Earned

525 Maintenance Expense
- 526 Payroll
- 527 Social Security Taxes
- 528 Unemployment Insurance—State
- 529 Unemployment Insurance—Federal
- 530 Insurance
- 531 Repairs

550 Selling Expenses
- 551 Salesmen's Salaries
- 552 Commissions
- 553 Brokerage Fees

554 Advertising
555 Traveling Expenses
556 Auto Expenses
557 Social Security Taxes
558 Unemployment—State
559 Unemployment—Federal
560 Telephone
561 Rent

600 General and Administrative Expenses
601 Officers' Salaries
602 Office Salaries
603 Legal Fees
604 Auditing Fees
605 Interest
606 Postage
607 Directors Meetings
608 Stationery and Printing
609 Taxes—State
610 Taxes—Miscellaneous
611 Donations
612 Dues and Subscriptions
613 General Expenses
614 Heat, Light, and Power
615 Depreciation—Office Furniture and Fixtures
616 Social Security Taxes
617 Unemployment Insurance Taxes—State
618 Unemployment Insurance Taxes—Federal

Balance Sheet

A typical balance sheet follows:

Assets

Current Assets
Cash on Hand
Cash in Banks
Mortgages Receivable—Within one year
Notes Receivable
Accounts Receivable
Installment
Salesmen
Sales Contract
Miscellaneous
Interest Receivable
Contracts Receivable
Subdivision A
Subdivision B
Land Held for Sale
Unimproved Land (Ready for Sale)
Subdivision A—Cost
Less Sales at Cost

Subdivision B—Cost
Less Reserve for Completion
Less Sales at Cost
Development Costs
Unallocated Expenditures on Property
Total Current Assets

DEFERRED CHARGES
Unexpired Insurance
Prepaid Taxes
Prepaid Licenses
Other Prepayments
Total Deferred Charges

INVESTMENTS
United States Government Bonds
Unimproved Land (Not Ready for Sale)

FIXED ASSETS
Equipment
Less Reserve for Depreciation
Office Furniture and Fixtures
Less Reserve for Depreciation
Automobiles
Less Reserve for Depreciation
Total Fixed Assets
TOTAL ASSETS

LIABILITIES AND CAPITAL

CURRENT LIABILITIES
Notes Payable—Banks
Notes Payable—Others
Accounts Payable
Interest Payable
Commissions Payable
Options Granted
Accrued Expenses Payable
Contracts Payable
Total Current Liabilities

DEFERRED INCOME
Unrealized Profits
Miscellaneous
Total Deferred Income

FIXED LIABILITIES
*Mortgages Payable
Total Liabilities

* When the company is not liable on the bond and mortgage, the mortgage payable is shown as a deduction from the asset to which it applies and the difference between the two is shown as the equity in the property.

CAPITAL
Common Stock Issued and Outstanding
Preferred Stock Issued and Outstanding
Total
Capital Surplus
Earned Surplus
Profit and Loss
Total Capital
TOTAL LIABILITIES AND CAPITAL

A typical profit and loss statement follows:

PROFIT AND LOSS STATEMENT

INCOME
Realized Profits on Sale of Land
Realized Profits on Collections
Cancellation Profits
Commission Earned
Interest Received
Income from Cancelled Options
Rental Income
Miscellaneous
Total Income

EXPENDITURES
Maintenance Expenses:
Payroll
Social Security Taxes
Unemployment Insurance—State
Unemployment Insurance—Federal
Insurance
Repairs
Total Maintenance Expenses
Selling Expenses:
Salesmen's Salaries
Commissions
Brokerage Fees
Advertising
Traveling Expenses
Auto Expenses
Social Security Taxes
Unemployment Insurance—State
Unemployment Insurance—Federal
Telephone and Telegraph
Rent
Total Selling Expenses

General and Administrative Expenses:
Officer's Salaries
Office Salaries
Legal Fees
Auditing Fees

Interest
Postage
Directors' Meetings
Stationery and Printing
Taxes—State
Taxes—Miscellaneous
Donations
Dues and Subscriptions
Depreciation—Office Furniture and Fixtures
Heat, Light, and Power
Social Security Taxes
Unemployment Insurance Taxes—State
Unemployment Insurance Taxes—Federal
General Expenses
Total General and Administrative Expenses
Total Expenditures
NET PROFIT

The following items in the balance sheet and profit and loss statement are peculiar only to the realtor dealing in land and are therefore worthy of comment.

Land Held for Sale

Land held for sale is the equivalent of the merchandise inventory account of a mercantile or manufacturing concern. It consists of land that is immediately salable or in the process of completion.

Accounts Receivable—Sales Contracts

A sales contract is an agreement for the sale or other disposition of land entered into between the prospective buyer and seller, or their respective agents. The opening journal entry on the books of an owner of land acting as agent, for the sale of land of other property owners within the subdivision, is as follows:

Accounts Receivable—Sales Contracts
Contracts Payable (Owner)
Profit on Sale

The selling price is to be treated as an asset and the liability to the owner (contingent until the property is sold) is shown under a separate caption in the liability section.

Contracts Receivable—Subdivisions

This is the balance due on contracts from the sales of subdivisions.

Property Expenses

These are undistributed improvement expenses. Until these expenses are distributed to the costs of the subdivisions, they are shown as a current asset.

Options Granted

This item consists of amounts received from prospective customers on options. It remains a liability until the time granted on the option expires, or the option is exercised.

Unrealized Profits

This account is credited periodically with all unrealized profits and is charged with all profits that have been realized.

Realized Profits on Sale of Land

This income account arises from cash sales in which the consideration is paid immediately and the profits are thereupon realized.

Realized Profits on Collections

The profit portion of the installment payment received in the fiscal year that constitutes realized profit is shown in this account.

Cancellation Profits

This profit is realized upon the repossession of land.

Income from Cancelled Options

This item represents the income from options that were not exercised and therefore did not materialize into sales.

Bookkeeping Methods

The following records are among those used by most dealers in land:

The General Ledger controls all subsidiary ledgers and includes details of the assets, liabilities, capital, surplus, income, and expense accounts.

The Property Ledger and Record contains the details of the land, subdivisions, and lots. It contains the cost, number, location, and history of each lot. The properties are also segregated into subdivision lots or wild land property.

The Mortgage Receivable Ledger contains particulars of mortgages held by the concern as mortgagor, including a description and location of the property, amount of mortgage, the date when mort-

gage received, due date, interest rate, valuation of the security for the mortgage, and insurance carried.

The Customers Ledger records in detail the accounts of the individuals whose property are included in subdivisions and handled by the realty firm as agent.

The Installment Ledger records in detail all installments due from the sale of the property. The customer, sales price, profit on sale, amount of installment, due date, etc., are recorded herein.

Options Granted contains a detailed analysis of all options granted. It contains information concerning the length of option, to whom granted, amount, property involved, etc.

The Mortgage Payable Ledger records in detail all mortgages contained. It shows whether the mortgage is a first or a second mortgage, the amount of the mortgage, interest payable, and due date, security for the mortgage, location of the property, number of the mortgage, etc.

Books of Original Entry for a dealer in land include those for cash receipts, cash disbursements, sales, voucher register, general journal, and petty cash.

The Sales Book show all sales, cost of sales, and profit arising from sales. At the end of the month, the totals are posted through the following summary entry: contracts or mortgages receivable, cost of sales, unrealized profits, and realized profits.

Voucher Register—All bills and expenses are entered in the voucher register and the totals posted monthly.

The General Journal contains the entries relating to the cancellation of contracts, and any other entries not entered in the other journals.

ACCOUNTING FOR RESTAURANTS

By
Joseph Brodner *

Brief Description of Business

The term restaurants as used herein applies to the commercial type of enterprise operated for a profit, in contrast to the nonprofit or low-profit restaurants operated by eleemosynary institutions, schools, colleges, banks, insurance companies, and others. In general, restaurants may be divided into two comprehensive types, namely, service (table or counter) and self-service (cafeterias). Both types, however, are subject to further and more detailed segregation, the accounting of which varies only slightly and requires perhaps, additional classifications of income and expenses, supported by adequate operating statistics.

Most restaurants combine the features of a buying, manufacturing, and selling organization, in addition to the usual personnel problems in a business that experiences more than an average turnover of employees. All items appearing on a menu in either a service restaurant or self-service cafeteria represent the result of a sequence of activities as follows:

1. Requisition by steward or chef of raw food supplies to meet daily menu requirements
2. Purchase of raw food supplies based on competitive prices
3. Acceptance of merchandise per orders and storage in general storeroom and kitchen iceboxes
4. Withdrawals from storeroom and iceboxes on signed requisitions
5. Preparation by butchers, cooks, pantry workers, etc.
6. Service of prepared foods by waiters or waitresses or transfer to counter steamtables for self-service aided by countermen and counterwomen

Whereas other businesses use advertising media, catalogues, and salesmen in their sales efforts, the restaurant uses its menu as its catalogue, and the headwaiters, waiters, and waitresses as its sales-

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people. It is obvious, therefore, that the menu should not be a stereotyped bill of fare, uninteresting and lacking in merchandising value, but rather a well thought out, cleverly designed catalogue that will have eye appeal for items so priced as to be within the reach of the character of patrons to be served, yet able to be produced and served at a cost that will provide a reasonable gross profit on sales.

In most types of restaurants provision is made for sales to be paid for in cash at the conclusion of service; in some instances, credit accounts are established for patrons. Predominantly, however, restaurants conduct a cash business with their patrons and a fair proportion of the establishments of moderate size also handle their payables on a cash on delivery or weekly payment basis. Large restaurants and the chain type of operator with adequate credit ratings usually settle their accounts monthly.

In this description the purchase and sales of wines, liquors, beer, and mineral waters in restaurants will not be dealt with in detail. Except for the cost accounting of beverage sales which is a separate although related accounting function, the costs and sales thereof from a general accounting standpoint are handled in the same manner as food costs and sales. It is well to mention at this point that all restaurants should have some simplified form of food and beverage cost accounting system as a daily guide to management.

Theory of Accounts

The theory of accounting for profit or loss in the operations of restaurants does not, in actual practice, differ materially among individual establishments. In fact, through association efforts, restaurants have developed a uniform system of accounting which provides a broad and flexible outline that may be adapted to the requirements of restaurants of all types and character. While a menu may consist of over a hundred items and a wine list may contain even a greater number, basically, the revenue therefrom is considered either as food sales or beverage sales.

Today, restaurant operators are more accounting- and control-minded than they have ever been. They have begun to realize the value to management of proper accounting procedures and the benefits to be gained from adequate control of sales, costs, and expenses. Accordingly, it may be said that the restaurant operator

looks for and expects his accounting to furnish him with the following:

1. *Daily, Weekly, and Other Periodic Reports on the Sales*—These sales segregated into the major classifications of food and beverages. Such reports may be further supplemented by detailed sales analyses giving types of food commodities or prepared menu items, and types and brands of wines, liquors, beer, and minerals. The latter analyses are usually possible only in large establishments having complete accounting facilities.

The reports with respect to food sales should be supported by statistical data giving the following information for comparable periods:

	Number Covers Served	*Food Sales*	*Average Check per Capita*
Breakfast		$	$
Luncheon			
Dinner			
Supper			
Total and General Average		$	$

2. *The Direct Costs Applicable to Food and Beverage Sales*—These include only the actual costs of raw materials used in the preparation of the items offered on the menus, and the dispensing of either straight or mixed drinks over the restaurant bars or served at tables. It should be borne in mind that the cost of wine used for cooking and issued from the wine cellar becomes a part of the "cost of food sold," and that the cost of fruit, eggs, milk, and cream, etc., issued from the kitchen and used in the making of mixed drinks is considered as part of the "cost of beverages sold."

These costs, in relation to their respective sales, are recognized as the prime factor in arriving at the gross profit on sales. Among restaurant operators there are certain accepted gross profit percentages considered as normal or average, the following characteristics being comparable: (a) type of restaurant, (b) geographical location, (c) volume of sales, (d) market prices, (e) menu prices, and (f) average check per capita.

With a uniform method of arriving at food and beverage costs, the ratios may be used for comparative purposes in testing the efficiency of the operations. There is a very definite trend toward

the exchange of such information among operators and much benefit has been gained thereby.

3. *Salaries and Wages Expenses Both in Dollars and in Percentage Relationship to the Sales*—As this item often equals the cost of merchandise sold and sometimes exceeds it, the operator is extremely anxious at all times to have this information at hand. With the accounting division preparing and presenting the necessary data on payroll costs, management is in a position to control this cost in some reasonable relationship to the sales fluctuations. In some establishments, and where local conditions permit, this is done on a day to day basis. Where desired the expense for salaries and wages may be segregated in the following departments: (a) administration, (b) preparation, (c) warewashing and cleaning, and (d) service.

4. *Other Operating Expenses*—These expenses include items of a general nature applicable to the operations but not entering into the direct costs of food and beverages sold. Repairs, maintenance, and certain replacements of an operating nature are chargeable under this expense group.

5. *Capital Expenses or Occupation Costs*—In this category of expenses are such items as rent, interest, and depreciation. These are the important expense factors that must be provided for through adequate sales and controlled operating expenses in order to produce a reasonable net profit.

The depreciation expense must not be considered lightly or only as a legitimate deduction for income tax purposes. The normal wear and tear on restaurant furnishings and equipment is very definite and, if anything, these assets may have a shorter life than that set out by government agencies as the normal economic life for such equipment.

As many restaurants are operated on leased premises, there is the problem of amortization as well as depreciation. Frequent programs of redecoration and rehabilitation are necessitated by competitive factors as well as the requirement of keeping up with modern trends. These costs must be recaptured during the term of the lease or renewal thereof, as they have no residual value to the tenant upon the termination of his lease.

Accounts Required

The restaurant business for some years past has realized the importance of a uniform system of accounting and, through the American Restaurant Association in cooperation with Horwath and Horwath, has developed and published such a system for use in both large and small restaurants. While all restaurant operators have not as yet adopted this system, a greater number are doing so each year. This trend toward uniformity in accounts and statistical information permits the gathering together of operating figures from all parts of the country and the preparation and dissemination of comparative operating data to member restaurants. Through the use of such information, individual restaurants may compare their own operations with the averages and standards shown for operations of a similar character in their own locality and with the general averages for operations throughout the country.

In view of the foregoing it was deemed advisable to request permission of the American Restaurant Association to incorporate in this description an adaptation of the classification of accounts as set forth in its booklet, "Record Keeping Simplified." This permission was granted and it is hereby gratefully acknowledged.

In the account classification which follows provision has been made for both large and small restaurants. The number of expense classifications may be limited to a few main divisions by the small operator without losing the possibility of comparison with other establishments (including the large ones). Operators of large restaurants may further subdivide any or all of the classifications given, if the size or nature of the business requires more details.

Sales

Under this caption are two major groups, food and beverages, and one minor group, cigars and cigarettes. Counter sales of cigars, cigarettes, tobacco, chewing gum, candy mints, and other standard articles usually handled are all grouped under cigars and cigarettes.

Sales to employees should in most instances be included in sales and not shown as a deduction from cost. Theoretical accounting calls for the latter kind of handling, but in small restaurants it is more practical to include these transactions in sales, so as to simplify the reconciliation of the cash register readings and the sales

records. Sales to employees should always be recorded on the regular checks in use.

Cost of Sales

The method of arriving at this cost is illustrated in the following:

Inventory at beginning of month		$ 800.00
Add: Purchases during the month	$3,300.00	
Freight and delivery charges	25.00	3,325.00
Total		$4,125.00
Less: Inventory at end of the month		675.00
Cost of goods consumed		$3,450.00

Freight-in, express, and drayage charges on food, beverages, and cigar-counter merchandise, are properly included in the cost of the goods rather than in the expense group. The cost of food and beverages sold includes the food and beverages consumed by employees, except that the latter may be segregated for cost purposes in large establishments.

Salaries and Wages

This item comprises all salaries, wages, commissions, and bonuses paid to employees. It should also include a reasonable amount for the services of the proprietor, if he is active in the business. If his salary exceeds an amount which would be paid to a salaried executive performing the same services, then the excess should be charged to Executive Office Expenses.

In large restaurants where there are a great many employees the payroll should be separated into groups for better control. These groups can be arranged by the nature of the activity, such as buying and storing, preparation, service, and clerical, or by the nature of the type of service, such as formal dining room, cafeteria, and lunchroom.

Operating Expenses

All ordinary direct operating expenses will be included in this group of accounts as follows:

1. *Laundry.*

2. *Fuel for Cooking* includes all cooking gas and coal, electricity, if electric ranges are used and the current is metered separately,

live steam for cooking if metered separately, charcoal for broilers, and alcohol and other prepared heat substances.

3. *Ice and Refrigeration* contains the cost of ice for refrigeration purposes and also that served to patrons with beverages and drinking water. If the restaurant maintains a mechanical refrigeration system, include the cost of ammonia, brine, and other supplies.

4. *Menus and Wine Lists* includes paper, printing, cuts, and all expenses incurred for the menus and wine lists. This account may be combined with the Printing and Stationery account where the cost is too small to warrant separation.

5. *Stationery and Printing.*

6. *Cleaning Supplies and Expenses* includes expenses for the cleaning of windows, carpets, rugs and draperies; washing and polishing floors; exterminating and disinfecting; and such cleaning supplies as acids, ammonia, brushes and brooms, dustpans and mops, soaps, lye, silverwash, soda, and disinfectants.

7. *Advertising* includes all costs for newspaper advertising, roadside signs, rental paid for electric signs, local publications, radio broadcasting, and so forth.

8. *Telephone, Telegrams, and Postage.*

9. *Music and Entertainment* includes expenses incurred in connection with the following: cost of orchestra, rental of electric player pianos, music rolls, piano tuning, music licenses, sheet music, phonograph records and needles, rental of radio sets, small repairs, and parts and supplies for radio sets and musical instruments.

10. *Plants and Decorations* includes the cost of cut flowers, palms, ferns, and other plants, and holiday decorations.

11. *Licenses and Permits* are all expenses for state and local restaurant licenses. Permits should also be charged to this account.

12. *Payroll Taxes.*

13. *Sundry Supplies* includes all miscellaneous supplies used in all parts of the restaurant.

14. *Miscellaneous* accounts for the following: snow shoveling, garbage and ash removal, legal expenses, and lost and damaged articles belonging to guests.

Maintenance

In this group is included the upkeep of the equipment and premises, as follows:

1. *China and Glassware and Linen*—In small restaurants the costs of replacing china and glassware, silverware, and linen may be charged to operations when incurred. A more scientific method is to make the monthly charges to these expense accounts equal to a prorata share of the annual cost of maintaining this equipment in first-class condition. The charges may be arrived at by using a certain percentage of the monthly food and beverage sales, which has been arrived at through experience. Periodical physical inventories are used as the basis for establishing the annual cost. The cost of repairing and replating is chargeable to this account.

2. *Kitchen Utensils*—This account represents the cost and expense of replacing and repairing knives, tools, pots, pans, kettles, mixing bowls, or other cooking utensils.

3. *Uniforms*—The cost of the uniforms should be divided by the estimated number of months of usefulness and a proportionate amount charged each month.

4. *General Repairs*—All repairs not mentioned heretofore.

Heat, Light and Power

1. *Electricity and Lighting*—The cost of electricity and lighting as shown on the profit and loss statement includes the cost of current used for lighting, signs, refrigeration, and electrical devices, such as toasters, broilers, and vacuum cleaners. (Where electric ranges are used, separate power meters should be installed and the cost of the current used for cooking charged to Fuel for Cooking.)

Candles used by tea rooms for illuminating purposes are properly chargeable to this account, as are also acetylene, kerosene, and gas used for lighting.

2. *Heating Fuel*—Coal, fuel oil, etc., purchased for heating are covered by this caption.

3. *Water*. This account reflects the cost of water consumed.

Insurance

This account includes the premiums on all insurance policies—employer's and public liability, fire, tornado, fidelity, robbery, plate glass, and group insurance on the employees. It does not cover fire and other insurance premiums on the building if the restaurant proprietor owns the building, and it is not used exclusively for restaurant purposes.

Insurance is generally paid in advance for considerable periods

and the payments should be so prorated that each month bears only its proportionate share.

Deductions from Operating Profit

Rent—This is the monthly rent paid to the lessor for the use of the premises. If the property is owned by the proprietor as a real estate proposition it is most practical to charge the restaurant a fair fixed monthly rental and show it on the restaurant books. This item should be sufficient to cover, for the space occupied by the restaurant, a prorata charge of all real estate taxes, insurance, building depreciation, mortgage interest, and interest on notes and loans secured by the property, and should leave the restaurant books free of charges for these expenses. In fixing the rent charged to the restaurant, consideration should be given to the cost of water, heat, and other services, if these are furnished and are not charged separately. If an entire building is leased as a real estate proposition similar principles should be followed.

In case the restaurant occupies the major part of the building, and other building income is incidental, then the total expense of carrying the building, less the income from subrentals, should be considered as the rental of the restaurant.

Depreciation—Restaurant equipment, exclusive of china and glassware, silverware and linen, is generally assumed to have a life of from 8 to 10 years. Each month should share one twelfth of the annual write-off.

If the restaurant is operated on leased premises and the lease is for less than ten years, the original cost of the furniture and equipment must be depreciated more rapidly, because at the expiration of the lease the salvage value of the furniture and equipment is generally negligible.

If a certain amount of money has been paid for the leasehold, it should be charged off to this expense account monthly in such sums that it will all have been written off when the leasehold expires.

Amortization of Leasehold Improvements

When extensive improvements are made on the premises, which will revert to the owner of the building when the lease expires, the cost must be charged to expense over the period of the lease in proportionate monthly amounts.

Profit and Loss Statement

Explanation	Food Amount	Food Percent	Beverages Amount	Beverages Percent	Cigars and Cigarettes Amount	Cigars and Cigarettes Percent	Total Amount	Total Percent
Net Sales	$	100.00%	$	100.00%	$	100.00%	$	100.00%
Cost of Sales:								
Gross Cost of Merchandise Consumed	$	%	$	%	$	%	$	%
*Less: Credit for Employees' Meals, etc.								
Net Cost of Sales	$	%	$	%	$	%	$	%
Gross Profit on Sales	$	%	$	%	$	%	$	%
					Detail Amount	Detail Percent		
Operating Expenses:								
Salaries and Wages					xxx	xxx	$	%
Other Direct Expenses:								
*Employees' Meals					$	%		
Laundry								
Fuel for Cooking								
Ice and Refrigeration								
Menus and Wine Lists								
Stationery and Printing								
Cleaning Supplies and Expenses								
Advertising								
Telephone, Telegraph and Postage								
Music and Entertainment								
Plants and Decorations								
Licenses and Permits								
Payroll Taxes (Federal and state)								
Sundry Supplies								
Miscellaneous								
Maintenance:								
China and Glassware					$	%		
Silverware								
Linen								
Kitchen Utensils								
Uniforms								
General Repairs								

Heat, Light and Power:				
Electricity and Lighting	$	%		
Electric Bulbs				
Heating Fuel				
Water				
	xxx	xxx		
Insurance				
Total Operating Expenses				
Operating Profit			$	%
Deductions from Operating Profit:			$	%
Rent	$	%		
Real Estate Taxes				
Interest				
Depreciation				
Amortization of Leasehold				
Amortization of Leasehold Improvements				
Total Deductions				
Net Profit before Income Taxes			$	%

* Restaurants not maintaining a separate record of the cost of feeding its employees would omit the starred (*) items.

OPERATING STATEMENT

In general, restaurant operators seek to secure from their operating statements: (1) the results of their sales efforts as to the net operating profits, (2) the measure of efficiency of the operations from the standpoint of the percentage relationships of the major costs and expenses to the sales, and (3) statistical data whereby the operations, presented in percentage form, may be compared with those of other restaurants of a similar character.

BALANCE SHEET

The ordinary balance sheet accounts found on the books of a restaurant may be listed as follows:

ASSETS

Current:
- Cash on Hand
- Cash in Banks
- Notes Receivable
- Accounts Receivable
- Inventories:
  - Food
  - Beverages
  - Cigars, Cigarettes, etc.
  - Fuel
- Marketable Securities
- Other Current Assets

Deposits with Public Utilities

Prepaid Expenses
- Insurance
- Taxes
- Licenses
- Other

Fixed Assets
- Land
- Building
  - Reserve for Depreciation
- Leasehold and Leasehold Improvements
  - Reserve for Amortization
- China, Glassware, Linen, Silver and Uniforms

Deferred Charges
- Advertising
- Other

Goodwill

LIABILITIES AND CAPITAL

Current Liabilities
  Notes Payable
  Instalment Contracts Payable
  Trade Creditors
  Accrued Expenses:
    Salaries and Wages
    Taxes (Detail)
    Interest
    Utilities
    Other
Mortgage Payable
Reserves
  Repairs and Maintenance
  Other
Capital Stock (if a Corporation)
Surplus
Net Worth (it a Partnership or Individual)

The assets and liabilities of a restaurant operator are valued in the usual manner. A review of the items contained in the foregoing proforma balance sheet reveal none that would require special comment.

It is pointed out, however, that most restaurants make complete closings monthly, giving effect to the proportionate write-offs of prepaid expenses, deferred charges, amortization, etc., and also to the setting up of proper expense accruals and reserves for replacements and depreciation.

Because of the monthly closings, *actual physical inventories* of food, beverages, cigars, cigarettes, etc., must be taken at the end of each such period. In order to determine the actual loss from wear, tear, breakage, or theft of linen, china, glassware, and silver, physical counts should be taken of these assets at least semiannually and, if circumstances permit, quarterly. Based on the values thus determined periodically, the replacement reserve provisions may be adjusted and the book values revised to actual inventory values.

BOOKKEEPING METHODS

The bookkeeping system of a restaurant generally includes the following records:

The General Ledger controls all other ledgers and records; contains the record of assets, liabilities, capital (or net worth), and surplus; also contains the detailed income and expense accounts.

From this record the balance sheet and profit and loss statement are prepared.

The General Journal is the book of original entry used when recording monthly closing entries, adjustments, etc.

The Cash Receipts Book (Earnings Journal) contains a detailed record of the sales and other cash receipts under the proper analytical headings, showing the sources of all cash revenues, the amounts expended for petty cash, and the net cash deposited in bank daily.

The Cash Disbursement Book contains a detailed record of all payments by check under proper analytical headings, showing the dates, check numbers, payees' names, amounts of checks, and distribution to accounts payable and to direct expense and other general ledger accounts.

The Purchase Journal (Voucher Register) contains a detailed record of all purchases of whatever nature, segregated as to dealers' names, voucher numbers, amounts of purchases and distribution to the various expense, inventory, asset, and other general ledger accounts.

The Inventory Book contains a detailed record of all food supplies, beverage supplies, china, glass, linen, silverware, etc. In the large restaurants having central storerooms, a perpetual inventory record is also maintained on which is shown the cost, receipts, issues, and balance on hand for each item of food and beverages.

The Payroll Records contain statistics required to conform with present Social Security taxes (Federal and state) as well as any state or local wage and hour laws, and to prepare statements required under the law to government sources and employees. In addition, most restaurants maintain a record of changes in compensation and assignments of individual employees.

Entries to the above records are made in the usual manner adopted in acceptable accounting systems. Postings are made directly to the general ledger from the cash receipts book, cash disbursements book, and purchase journal, thus obviating the necessity of journalizing the totals of these books monthly. The cost of goods consumed and payroll expense are recorded in the general journal monthly and then posted to the general ledger. This procedure may be simplified by setting up in a trial balance book a

proforma set of recurring monthly entries so that use of the general journal for this purpose is eliminated.

When a restaurant does a substantial volume of "charge business," the cash receipts book will have to be amplified to provide accounts receivable debit and credit control columns, supported by a detailed accounts receivable ledger showing the transactions with each patron having a charge account.

ACCOUNTING FOR THE RETAIL DRUGSTORE

By

Paul C. Olsen *

Brief Description of the Business

In the United States there are 58,000 drugstores. Of these 4,100 are units of chain store systems and the rest are individually owned and operated. The one thing that distinguishes a drugstore from every other type of retail establishment is the professional service it is equipped and licensed to supply. In outward appearance some drugstores may resemble cigar stores, restaurants, or variety stores, but to be licensed as a drugstore it must maintain a prescription laboratory and have in charge of this laboratory at all times one or more registered pharmacists. The pharmacy laws of many states now specify, or authorize enforcement officials to specify, the minimum prescription laboratory equipment and stock that an establishment must have in order to be licensed as a drugstore.

In addition, the laws of every state require that retail sales of specified narcotics, and poisons, and other dangerous drugs shall be made under the supervision of a registered pharmacist in a drugstore. As a consequence, there is to be found in every licensed drugstore a variety of pharmaceutical manufacturing equipment and supplies. This equipment and these supplies are used, not only for the compounding of prescriptions upon the order of physicians, dentists, veterinarians, and other authorized persons, but also for the manufacture and packaging of household drug products and toilet preparations to be sold in the store.

Origin of Soda Fountains

Two thirds of the drugstores in the United States have soda fountains at which foods, as well as refreshments, usually are served. The development of soda fountains in drugstores is a

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logical outgrowth of the professional services which these stores are equipped and licensed to supply. Drugstores supplied the carbonated waters prescribed by physicians for various illnesses. With the discovery of the refreshment qualities of carbonated water, it was only natural that the drugstore should provide this refreshment service. In providing such a service at the present time, competitive conditions usually require the use of elaborate equipment and it is necessary for the store to have adequate space on the premises for the use of patrons of the soda fountain.

As a consequence of this elaborate equipment and floor-space requirement, the gross margins obtained on soda fountain sales are considerably higher than on packaged merchandise requiring no special equipment or service. Typical averages for the cost of the merchandise sold at drugstore soda fountains are 50 to 55 per cent of sales. This amount compares with average costs for merchandise sold in drugstore prescription departments of 35 to 40 per cent of the price received for the prescriptions. The difference is explained by the professional services supplied in prescription compounding and the extensive and relatively slow-moving stocks that must be kept on hand.

Prescription revenues in drugstores typically amount to 12 per cent of total sales, although, there are some in which prescription revenues amount to a half or even two thirds of the total store sales. In drugstores with soda fountains this department typically accounts for 20 per cent of total store sales; in metropolitan stores, sales in this department may account for as high as half to three fourths of total sales.

Tobacco Department Growth

The rise in recent years in the importance of drugstore tobacco departments is attributed, in part, to the decline in this country in sales of expensive cigars and other tobacco products requiring special knowledge and care and the rise in public favor of cigarettes, a tobacco product requiring relatively little service, care, or knowledge in its retailing. The seven-day-a-week service characteristic of drugstores has made them an especially logical outlet for cigarettes and other inexpensixe tobacco products. Tobacco department sales in drugstores now approximate 15 per cent of total sales.

The development of the drugstore as a leading outlet for tobacco

products in competition with the exclusive tobacco stores which formerly predominated in this field is typical of the success experienced by thousands of drugstores in the sale of a variety of merchandise, some of which is related only in the remotest way to the practice of pharmacy. Drugstores became important distributors of alarm clocks, for example, when it was discovered that consumer purchases of this type are almost always made at the last minute, and the drugstore with its evening, Sunday, and holiday operation is the store most likely to be open when these sudden demands arise.

There is a natural tendency for an outside observer to believe that these unrelated side lines are of greater importance to the present-day success of drugstores than actually is the case. Unrelated items offered in a drugstore must be displayed prominently because customers do not expect to find such merchandise there and will not buy it unless reminded by these prominent displays.

The sale of numerous and often unrelated side lines has proved to be decidedly attractive to many thousands of drugstore proprietors in spite of the relatively small proportion of the sales volume obtained from these sources. These additions to sales volume are usually accomplished without any increase in store operating costs, with the result that the gross profits obtained from these sales become direct additions to net profits.

What Drugstores Sell

The kinds of merchandise to be found in drugstores may be grouped in the following classifications, the first eight of which constitute upward of 90 per cent of the total sales in virtually all drugstores:

1. Drugs and chemicals
2. Proprietary medicines
3. Prescriptions (which may be drugs and chemicals, proprietary medicines or combinations)
4. Alcoholic liquors, when permitted by law
5. Invalid and sickroom supplies and equipment and baby necessities
6. Toilet articles and preparations
7. Soda fountain
8. Tobacco products
9. Candy
10. Insecticides and rodent poisons
11. Cleaning and dyeing preparations
12. Paints, oils and glass
13. Seeds, bulbs and plants
14. Cameras and films
15. Stationery, greeting cards, pens, and pencils
16. Books, magazines, newspapers and rental libraries
17. Watches, clocks, and jewelry
18. Radio
19. Phonographs and records
20. Sporting goods
21. Electrical appliances
22. Toys

Theory of Accounts

The problems of drugstore accounting revolve principally about the inventory, expense classification, cash verification, and cost studies.

Inventory—Inventory taking, in spite of its vital importance, is a task which is often avoided and postponed in drugstores because of the large and varied stocks maintained by this type of establishment. Costly losses can be checked when the drugstore owner has the guidance in his operations of an annual inventory of his merchandise stock. Such an inventory uncovers goods that have been overlooked and that, if not sold soon, will have to be discarded as a total loss. The annual inventory also provides information on the loss from obsolescence, deterioration, and spoilage of merchandise stock on hand.

The annual inventory is useful, moreover, in connection with departmentalized records of purchases and sales for the determination of the cost of the goods sold in these departments. The average cost of merchandise sold in drugstores is usually between 60 and 65 per cent of sales, but departments within a drugstore vary from 35 to 40 per cent for prescription department merchandise costs, and 50 to 55 per cent for soda fountain merchandise costs, to 75 to 80 per cent for tobacco department merchandise costs.

A departmentalization which is sufficient for most drugstores is soda fountain, tobacco, and a department covering the other stock in the store. (In those states in which drugstores are permitted to sell alcoholic liquors, a separation of these purchases, sales, and inventories from those of the rest of the store also should be made. Liquor department merchandise costs in drugstores are usually 75 per cent of sales.) It would be desirable to maintain records of the prescription laboratory separately, but this is generally impracticable because of over-the-counter sales of merchandise from this department in addition to the use of its stock in compounding prescriptions.

When the merchandise costs of the soda fountain department or the tobacco department of a drugstore are found to be above average, the institution of a daily inventory of merchandise stock has proved to be an exceedingly effective method of controlling merchandise purchases in these departments. With these daily inven-

tories it is then possible to determine the daily cost of merchandise sold. The daily inventory of a drugstore soda fountain department and tobacco department is not a burdensome task because of the exceedingly rapid rate of turnover of merchandise stock in these departments.

The use of monthly buying budgets for the various departments of a drugstore is also a simple and certain method of controlling merchandise purchases.

Store Expenses Classified

Columnar accounting forms for drugstore financial records are much more commonly used than the familiar cash book, ledger, and journal. The classification of store expenses generally employed in these columnar record books is as follows:

Salaries and wages
Rent
Heat
Light and power
Taxes and licenses
Insurance
Interest paid
Repairs
Delivery
Advertising
Miscellaneous

Estimates of depreciation on fixtures and equipment and of bad debt losses are made annually and then added to the profit and loss statement for the year. In estimating the depreciation on drugstore fixtures and equipment full allowance should be made for losses resulting from obsolescence. Amazing sales increases have occurred in drugstores which have been modernized. Consequently, drugstore owners are likely to consider discarding fixtures and equipment long before their useful life has ended. At soda fountains, particularly, improvements in equipment constantly are being made, thus hastening the elimination of items in use in this department.

Verification of Cash

A check upon the accuracy of entries in a columnar record book is made by verification each month of cash on hand and in bank. This verification consists of a comparison of the cash sales for the month; cash received on account during the month; miscellaneous income; and the cash on hand and in bank at the beginning of the month with the total amount of cash paid out during the month. The resultant figure should equal the cash on hand in the store

and in bank at the end of the month. (This monthly verification is in addition to the daily comparison of cash on hand with cash register totals, a practice which should be followed with meticulous regularity in every retail store.)

Although there are obvious advantages to the use of a petty cash fund in any business establishment, by far the more general practice in drugstores is the direct payment of petty cash expenditures from the cash receipts which are on hand in the store. Appropriately printed forms are advisable for recording petty cash expenditures in those cases in which there is no invoice, receipt, or other substantiation of the amount of cash paid out. A cash register record of petty cash payments is also desirable as an aid in the daily comparison of the cash register totals with the cash on hand.

Cost Studies

A number of studies have been made of the usual costs and profits of individually owned drugstores. First of these was by the Harvard University Bureau of Business Research for the year 1919. In the following decade similar studies were made by the Cinchona Club of St. Louis, I. L. Lyons and Company, wholesale druggists of New Orleans, the University of Colorado Bureau of Business and Governmental Research, the Northwest Pharmaceutical Bureau, and the Philadelphia Wholesale Drug Company. Dun and Bradstreet, Inc., has also published reports on this subject.

There has been some uninformed misuse of these and similar average figures on drugstore margins and costs. It has been fallaciously assumed, for example, that merchandise on which the gross margin obtained is less than the average cost of doing business is necessarily sold at a loss, while on merchandise on which the gross margin is greater than the average cost of doing business, the sale of this merchandise is invariably profitable. As a result of these misunderstandings, some drugstore owners have underpriced merchandise on which handling and selling costs are above store-wide averages and have overpriced the merchandise on which the handling and selling costs are less than the average for the entire store. Trade on the overpriced items consequently has been diverted to competitors, thus raising the costs of operation of the store, and setting in motion a circle of ever-rising costs and continuously de-

creasing sales. For retail drugstores there are available estimates of the average costs of handling and selling individual packaged articles of various unit selling prices and different rates of turnover.[1]

Typical Costs

Since 1932, Eli Lilly and Company, Indianapolis pharmaceutical manufacturers, whose products are to be found in the prescription laboratories of every drugstore in the United States, have published an annual digest of typical drugstore operating costs and analytical comments about them. This digest is sent free to any drugstore owner requesting it and also may be obtained by accountants practicing in this field. From the *Lilly Digest* a summary table of operating costs for drugstores of various sizes and types has been prepared and presented on the following page.

Lilly Analysis Service

Eli Lilly and Company offers to drugstore owners and the accountants serving them a confidential analysis service. Individual profit and loss statements submitted for this confidential analysis service are compared with those of similar stores. Thus any unprofitable differences between the figures for the individual store and the typical operating results for stores of this type are immediately apparent. An individual report is sent for each store for which the figures are submitted. No cost or obligation is assumed in asking for this service.

Accounts Required

The usual balance sheet accounts are generally used with no code symbols employed. The profit and loss accounts may be listed on the chart of accounts in simple form—sales, and purchases, then expenses as heretofore classified. Sometimes sales and purchases are analyzed by departments.

No chart of accounts or financial statement forms are herein presented because of their essential simplicity.

Bookkeeping Methods

Most common of the records to be found in drugstores are those for accounts receivable from customers. Even in stores which pro-

[1] This subject is discussed at length in *The Marketing of Drug Products* by Paul C. Olsen, Harper & Brothers, 1940.

Typical Costs and Profits of Individually Owned Drugstores

	Rent (per cent)	Salaries (including proprietor) (per cent)	All Other Expenses (per cent)	Cost of Goods Sold (per cent)	Turnover of Merchandise Stock (times a year)	Value of Average Merchandise Stock Investment
Cities under 5,000 population						
Stores with sales under $10,000	2	20	9	64	2.5	$2,000
Stores with sales $10,000 to $20,000	2	15	8	68	2.5	4,000
Stores with sales $20,000 to $30,000	2	16	8	67	2.5	6,500
Stores with sales $30,000 to $50,000	2	15	8	69	3.5	8,500
Stores with sales over $50,000	2	16	8	68	3.0	14,000
Cities 5,000 to 25,000						
Stores with sales under $10,000	5	20	8	65	2.5	2,000
Stores with sales $10,000 to $20,000	4	17	8	69	3.5	3,500
Stores with sales $20,000 to $30,000	3	18	8	65	3.0	6,000
Stores with sales $30,000 to $50,000	3	15	8	68	3.5	7,500
Stores with sales over $50,000	2	16	8	65	3.5	14,000
Cities 25,000 to 100,000						
Stores with sales under $10,000	5	20	8	65	2.5	2,000
Stores with sales $10,000 to $20,000	4	18	8	69	3.5	3,000
Stores with sales $20,000 to $30,000	3	16	8	67	4.0	4,500
Stores with sales $30,000 to $50,000	3	16	8	68	4.5	6,000
Stores with sales over $50,000	3	16	9	67	4.5	10,000
Cities over 100,000						
Stores with sales under $10,000	6	20	9	65	2.5	2,000
Stores with sales $10,000 to $20,000	4	18	8	67	3.5	3,000
Stores with sales $20,000 to $30,000	4	15	8	70	4.5	4,000
Stores with sales $30,000 to $50,000	3	16	8	70	4.5	6,000
Stores with sales over $50,000	3	15	9	69	6.0	10,000

fess to be operating entirely upon a cash basis, there are sure to be some accommodation sales on credit. These may be recorded in a day book and the entry checked off or cancelled when the account is paid. Such a method is, of course, extremely unsatisfactory in any drugstore in which more than five or six customers buy on open account.

Customers' Accounts

Maintaining individual sale slips for each credit transaction is the most satisfactory method of making original entries of credit sales. Some stores use triplicate sales books for this purpose but the usual experience is that a single copy sales slip is satisfactory. Drugstore purchases are of such a casual nature, for the most part, that customers do not desire a sales slip copy and store service is slowed by the use of triplicate forms. To guard against loss of single copy sales slips, they may be serially numbered. It is desirable also to imprint them on the cash register at the time the transaction occurs.

There are still some drugstores which post sales slips to customers' ledger accounts and then at the customary billing period, which usually is the end of the month, copy the ledger account on a billhead to be sent to the customer. In a large number of drugstores this laborious and time-consuming method of billing has been supplanted by the loose-leaf customers' ledger in which customers' monthly statements of account and the store ledger accounts are prepared simultaneously by the use of carbon paper. At the end of the month or billing period the customers' copies are removed from the loose-leaf ledger and sent to customers. The use of window envelopes eliminates the labor of addressing and avoids the possibility of any customer receiving the wrong bill.

Accounts Receivable Summarized Monthly

For the guidance of the management of the store, a monthly summary of accounts receivable from customers should be prepared, which shows the total amount of customers' unpaid accounts the first of the month under review; the sales on credit during this month; total amount received on account during the month; and, finally, the total amount of customers' unpaid accounts at the end of the month.

In drugstores, installment selling has not yet become of sufficient

importance to warrant the inauguration of special accounting records and forms for this type of transaction. Some few time-payment sales of electric razors and radios are made in drugstores, but these transactions are so infrequent that they are recorded and handled in the same way as sales on open account.

Machine bookkeeping for customers' accounts in drugstores is decidedly rare. Of the 58,000 drugstores in the United States less than one hundred have an annual sales volume which exceeds $300,-000 each, and three-fourths of these are units of chain store organizations. When allowance is made for the fact that most of these stores sell entirely for cash, the lack of machine bookkeeping installations in individual drugstores for customers' accounts receivable is understandable.

Accounts Payable Records

Accounts payable provide a record-keeping problem that exists in every drugstore. The conventional accounts payable ledger may be used but the very large number of purchases from the same sources of supply that is characteristic of the operations of most drugstores has resulted in the development of a number of short-cut methods. As much as half of a retail druggist's purchases on credit may be from a single wholesale source of supply. Some druggists pay for such purchases when due directly from the file of accumulated invoices. To avoid the necessity of numerous ledger accounts with other suppliers, the invoices from these sources are placed upon a post file and the amount of these invoices is entered seriatim on a ruled form which may be attached also to the post file or included in one of the general record books of the store.

When such a short-cut method is used for recording accounts payable, a monthly summary should be prepared for the guidance of the store owner. This monthly summary includes the total amount of unpaid invoices on the first of the month under review; the total amount of purchases made on credit during the month; the amount of invoices received during this and previous months which were paid this month; and, last, the total amount of unpaid invoices at the end of the month.

Notes Payable Ledger

The maintenance of a subsidiary ledger for notes payable is desirable in a drugstore because these transactions extend over

relatively long periods and are with a comparatively small number of suppliers and other sources extending credit of this type. Regrettably, there is to be observed in a large number of drugstores an amazing ignorance about the status of installment accounts and other notes payable for which the store owner is responsible. A monthly summary of notes payable similar in form to that for accounts payable provides a ready review of the general trend, but it is of equal importance to have the details of the individual accounts easily available.

Prescription Filing

All drugstores maintain records, required by law and custom, of prescriptions filled in the store. These prescriptions may be filed on post binders, or the older method of pasting them in blank books may be employed. The prescription revenue of a drugstore in a particular period thus can be readily determined because it is the universal custom to note on each prescription filled the amount received for it.

Certain drugstores fail to record the number of prescriptions refilled. In these stores a mere check of the prescription files accordingly results in an understatement of the prescription revenue. The record of prescriptions renewed is easily and accurately prepared. Each day a form about the size of a prescription blank is dated and on this blank are enumerated the serial number of the prescription that is refilled, the physician's name (as a check on the accuracy of the entry of the serial number), and the amount received for the prescription. This blank is then filed with the new prescriptions that were received that day. Federal and state governments require special records on forms provided by them for narcotics and alcohol dispensed in drugstores. The pharmacy laws of every state contain requirements for recording the sale in drugstores of dangerous poisons.

ACCOUNTING FOR RETAIL FOOD STORES

By

SAMUEL UNGER *

BRIEF DESCRIPTION OF BUSINESS

Food retailers perform the primary function characteristic to all retail stores, that of buying and selling merchandise. There are, however, two distinctive features in this branch of retailing: (1) the greater degree of perishability of a large proportion of the goods sold, and (2) the rapid rate of turnover of stock (ranges from twelve to sixteen times per annum). From 80 to 100 per cent of the business is done for cash. Cash registers are used extensively for recording these sales.

Food stores are classified broadly as grocery stores and combination stores. The grocery stores carry stocks of dry groceries, dairy products, and produce (fruits and vegetables). The combination stores also have a meat department. There are, in addition, many other groups of varying types, chief of which are those that specialize in the goods after which they are named—dairy stores, produce stores and markets, meat stores and markets, and delicatessens. All of these carry, in addition, incomplete stocks of other goods in the regular food line.

The grocery and combination stores are either the conventional service or self-service type. The self-service stores, usually combination stores, limit the self-serving feature to the dry groceries department. Merchandise sold in the other departments requires the same personal service which is typical of the conventional type, the vegetables, fruits, dairy products, fish and meats being counted or weighed in the presence of the customer as they are sold.

The supermarket is assuming a growing importance in this field. It is the combination self-service store enlarged to give to the cus-

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tomer a maximum choice of goods. A large floor area is needed and a free parking lot is an indispensable adjunct.

The size of food retailing operations ranges from the single store to the "local multiunit" type in which two, or at most, three stores are operated in a single community. Individual proprietors who actively run their businesses are common to this branch of retailing. Frequently, one or more of the departments other than the dry grocery are leased or concessioned.

The food retailer deals with a large number of suppliers. However, the bulk of purchases in each department are made from one dealer, which may be either a wholesaler, jobber, or a cooperative wholesale in which the retailer has invested. Numerous day-to-day purchases of perishables are made. All purchases are for cash or on short credit terms. In the "local multiunit" operation purchases will be made closer to the source of supply, in larger quantities, and some warehousing becomes necessary.

Many food retailers use trucks to make deliveries and pickups. Trucking becomes more extensive where warehousing is carried on.

As has already been indicated, the food business naturally falls into four selling departments: (1) dry groceries (includes household supplies), (2) dairy products, (3) produce (fruits and vegetables), and (4) fresh meats (fish is frequently sold in this department).

The extent to which actual division is achieved depends on the volume of business and the progressiveness of the individual proprietor. It is usual to the combination store. The organization of the supermarket lends itself to complete departmentalization of the cash and merchandise controls. Merchandise control is a very important factor; and since the rates of gross margin for each department vary, the correct combination of them is necessary for profitable results.

Theory of Accounts

Accounting practice for food retailers varies with the size and type of operation. Every retailer wants to obtain figures which will give the data concerning sales, cost of goods sold, selling and other expenses, and net operating results. In this branch of retailing, accounting theory develops three distinct classes:

1. The Single Store without Any Departments—In this case,

all merchandise sold (ranging though it may through two or three types (is accounted for without breakdowns, and the accounting for the income and expenses is the simplest type obtainable. Sales appear in one figure and the expenses are divided into the fourteen natural divisions usual to retailing. (These are listed in the section "Operating Statement for Food Retailers.") Some merchandise control can be achieved through the use of the retail inventory system. At best, this is an approximation since only the average results can be obtained, and these will not identify the source of shortages that appear.

2. The Single Store with Departments—The accounting objective seeks to obtain the operating results for each department as well as for the business as a whole. Sales and expenses are therefore credited to and charged against each department. This method entails setting up the natural expense divisions in accounts for each department of the business. Those expenses which cannot be readily allocated to each department on a cash basis, such as occupancy, management, and other items of general overhead, are allocated to the various departments, either on a space or a percentage of sales basis, the choice depending on the disbursement involved and prevailing local conditions. Merchandise control can be more accurately obtained since it can be obtained departmentally. The inventory system now takes on more meaning. When excessive deviations from normal results appear, the causes can be analyzed and corrective measures taken in those departments that show they are not maintaining the necessary margins to give the desired result for the business as a whole. It is apparent that each department is treated as a single operating unit which must produce profitable results.

3. The "Local Multiunit" Business—The business is actually a small chain store type and as such, in addition to the retailing function, carries on a number of functions common to wholesaling. Because of the dual nature of the business, retail and wholesale, a functional type of organization will develop. The accounting objective is to obtain the costs of each of the elements making up the business. These functional expense elements are: (a) store or selling expenses, (b) warehousing expenses, (c) transportation expenses, and (d) buying and administrative expenses.

The accounting for the store or selling expenses will be obtained

for each store unit as well as departmentally where such divisions exist in any particular store unit. For the warehousing, transportation, and buying and administrative functions, the objective is to obtain costs for each of these functions. The accounts will show the expenses in the same natural divisions as heretofore. The allocation of overhead expenses is more difficult and requires a careful analysis that they may be properly divided. It is not unusual to find one individual carrying on more than one functional duty. The degree to which these expenses are broken down will depend entirely on the operation. It must be remembered that the owner of the business carries on the wholesaling function on the theory that it will cost less and the accountant should compare these costs with those published in standard trade publications to intelligently advise his client whether or not the desired objective is being obtained.

The supermarket; while similar to the second type (single store with departments) deserves some special attention because of its growing importance in this field. One additional practice often appears. Space in the market may be rented, or certain of the departments operated by concessionaires. Sometimes space may also be rented for businesses not directly related to the food operation. In analyzing costs, a clear distinction becomes necessary between the real estate operation, and the actual tenancy expense incurred in the business of selling food. The general practice is to treat the rent income from concessionaires as a reduction of the tenancy expense. Occasionally a separate corporation is organized to handle the real estate operation. In these cases, the supermarket pays a rent just as do the other tenants. Taxation is usually the determinant as to whether this is desirable. Particularly in the case where the rent income is credited against the tenancy expense, the net occupancy cost as a percentage of gross sales should be compared with the occupancy figures published in standard trade journals.

Merchandise control is a particularly important division in retail accounting procedure. The necessity for adequate control cannot be overemphasized since net operating margins are small and uncontrolled shortages will result in net operating losses. Special attention must therefore be given to the proper control of merchandise. Whatever system is employed must stand the tests of

simplicity and low cost; bookkeeping expense must be kept to a minimum to obtain profitable operating results.

The retail inventory method is especially suited to the food business because of the large ratio of items to dollar value of stock, and the rapid turnover. It should provide the means for determining operating results and for guarding against losses from improper handling. It does not involve keeping accounts for each item and, except for the year-end inventory, provides a method for rapidly ascertaining the selling value of the goods on hand. Using the ratio between cost and selling values, established at the year-end inventory, which is figured at both cost and selling prices, it provides an easy yet fairly accurate method for determining preliminary operating results and for guarding against shortages due to improper handling of goods. The use of this method requires that the retail selling value of each invoice be computed. The total of these invoices provides the accountability figure for the goods received. Since these retail selling values are not subject to automatic accounting control, test checks of the extensions are necessary for sufficient invoices to insure accuracy. The ideal, towards which a maximum standard can be set, is actual departmentalization. This will accurately determine merchandise results and provide controls over stock.

Within any organization where departmentalization takes place, the systems for the several departments will vary. Meat departments, for example, do not lend themselves to the routine systems applicable to dry groceries. Waste and perishability are more serious problems in a meat department. A highly skilled and more highly paid personnel is required as are more elaborate fixtures. These factors result in higher costs and this department therefore requires closer supervision. This is true, although to a lesser degree, of the produce and other perishable food departments. The variance of treatment of merchandise control emphasizes the desirability for departmentalizing.

Since most of the business is done for cash and there are many payments for merchandise made out of current cash receipts, close attention is required to the cash system used and careful supervision over these receipts and disbursements is advisable. Of necessity, many daily payments occur for daily deliveries of various types of goods. The opportunity for cash leakages is apparent and

careful inquiry is required to insure that responsibility for making "pay-outs" is fixed and rigidly adhered to. Suitable cash registers may be obtained for any situation which confronts the food retailer.

The use of percentages in the preparation of reports of audit, while common to all business, is of special importance to the food retailer. Comparisons with previous periods are important; but of even greater value is the application of the percentages to current operations. The trade publications indicate the attainable standards of performance for each of the numerous types of business in this field. The individual proprietor will find these valuable in the preparation of current and year-round budgets, and as goals towards which to strive.

The accounts receivable merit careful attention because such credit business as is done is carried on in a manner which does not make it readily subject to accounting controls. They are really very short-term open-book accounts. Card and file systems are in common use and these require careful checking and supervision to insure efficiency and a minimum of losses.

Accounts Required

This discussion is based on the needs arising from the second and third classes treated in the preceding section, dealing with single stores with departments and the "local multiunit" operation. The requirements for the single store without departments can easily be interpolated from the following material.

The food retailer desires:

1. an analysis of sales by departments,
2. an analysis of the costs of the sales in each department, and
3. an analysis of the costs of the departments other than the selling departments, namely, warehouse, transportation, and buying and administrative.

Store Expenses—are the actual selling expenses, which cover broadly:

1. The occupancy costs of the space devoted to selling
2. The labor costs of handling and selling the goods in the store
3. The cost of maintaining goods in salable condition—applies more particularly to the perishables
4. The costs of supplies incidental to rendering the desired service
5. The costs of delivering goods to customers
6. The costs of promotion of sales
7. Depreciation costs of equipment
8. Insurance costs—on inventory, equipment, and fixtures, as well as liability, and workmen's compensation

Warehouse Expenses generally cover:

1. Occupancy costs of space devoted to this purpose
2. Labor costs of handling and storing goods
3. Costs of maintaining goods in salable condition
4. Depreciation of equipment used
5. Insurance on inventory, fixtures, and equipment as well as liability and workmen's compensation

Transportation Expenses involve *only those of transporting the goods from the warehouse to the stores.* They are divided broadly into the following:

1. Labor costs of operating rolling equipment
2. Supplies for operating rolling equipment; gas, oil, tires, etc.
3. Garaging of rolling equipment
4. Repairs to rolling equipment
5. Insurance—fire, liability, property damage, theft, workmen's compensation
6. Depreciation of rolling equipment

Buying and Administrative Expenses can be classified as follows:

1. Salaries paid to employees not engaged in the three other departments previously listed. Executive, bookkeeping, buying, and other clerical salaries are examples.
2. Occupancy
   a. Rent
   b. Light
   c. Depreciation of office equipment
   d. Insurance on office equipment, liability, and workmen's compensation
3. General
   a. Stationery, supplies, postage, telephone, telegraph, traveling, repairs to office equipment
   b. Professional services—legal and accounting
4. Taxes include all except income taxes, namely, social security, unemployment insurance, occupancy, franchise, sales, and other miscellaneous taxes payable to municipal and state governments.

A suitable account designation for the books of the food retailer will follow the departments already developed in the foregoing sections. They may be listed as follows:

Numbers	*Will designate*
101–199	Accounts involving sales and all other income
201–299	All accounts involving purchases of *goods* only
301–399	Store Selling costs
401–499	Warehousing costs
501–599	Transportation costs
601–699	Buying and Administrative costs
701–799	Balance Sheet Accounts

Where more than one department of sales is involved, each account number will have have a letter prefixed to identify it readily.

Department	*Sales*
Grocery	A 101
Meat	B 101
Fish	C 101
Produce	D 101
Dairy Products	E 101

No return account designations appear since such transactions are handled on a cash basis.

A suggested expense classification for the functional divisions of the business follows:

EXPENSE CLASSIFICATION

	Store	Ware-house	Trans-portation	Buying and Administrative
1. Advertising and Promotion	301	x	x	x
2. Contributions	x	x	x	602
3. Coats, Aprons, Towels	303	403	x	603
4. Depreciation	304	404	504	604
5. Gasoline and Oil	x	x	505	x
6. Ice and Refrigeration	306	406	x	x
7. Insurance	307	407	507	607
8. Legal and Auditing	x	x	x	608
9. Light, Heat, Water, Power	309	409	x	609
10. Miscellaneous	310	410	510	610
11. Postage	x	x	x	611
12. Rent	312	412	512	612
13. Repairs	313	413	513	613
14. Salaries	314	414	514	614
15. Stationery and Office Supplies	315	415	x	615
16. Taxes	x	x	x	616
17. Telephone and Telegraph	x	x	x	617
18. Tires and Automotive Supplies	x	x	518	x
19. Traveling	x	x	x	619
20. Wrapping Supplies	320	420	x	x

The store expenses can be further distributed over the selling departments. Where no functional division is desirable, the account designations will be allocated to the selling departments.

OPERATING STATEMENT

Food retailers will desire to obtain from their operating statements: (1) the results in each selling department of the business, (2) the relation, *in each selling department,* of cost to net sales,

Statement of Income and Expenses

	Selling Departments				Functional Division			
	Grocery	Meat	Produce	Dairy	Store	Warehouse	Transportation	Buying and Administrative
SALES (Net)								
COSTS OF GOODS SOLD								
Inventory, beginning of period								
Purchases (include inward freight, express, truckage) net after cash discounts								
Less: Inventory, end of period								
OPERATING EXPENSES								
Payroll								
Rent								
Depreciation								
Supplies								
Light, Heat, Water, and Power								
Ice and Refrigeration								
Repairs								
Professional Services								
Traveling								
Advertising								
Telephone and Telegraph								
Insurance								
Taxes (except income taxes)								
Unclassified								
NET OPERATING PROFIT								
Miscellaneous Income								
Less: *Miscellaneous Expenses*								
Interest								
NET PROFIT BEFORE INCOME TAXES								

Note: The form of statement above shows the distribution of sale and expenses for the functional type of business. The single store with departments distributes expenses over the department headings only. The single store without any departments will use a single column to list sales and expenses. In the two latter cases, such administrative expenses as appear may be segregated in an account designation under the Operating Expenses.

and (3) the relation, *in other departments*, of cost to net sales (when they exist).

BALANCE SHEET

Balance sheet accounts in common use in the books of food retailers are included in the type of balance sheet used which follows:

ASSETS

Current
- Cash in Banks
- Cash on Hand
- Accounts Receivable
- Inventory—at cost or market, whichever lower

Deferred
- Prepaid Expenses
- Deposits

Fixed

Store fixtures and equipment Office fixtures and equipment Trucking equipment Investments	less reserves

LIABILITIES AND CAPITAL

Current
- Accounts Payable

Deferred
- Notes Payable

DEFERRED DEBT

CAPITAL STOCK

SURPLUS

These assets and liabilities are valued in the normal manner. The inventory item requires some detailed comment.

Inventories

The year-end inventory is valued at both cost and selling prices. The "cost or market, whichever is lower" principle is applied in computing the balance sheet value. The ratio between cost and selling values, thus obtained, provides the basis for estimating the value of the inventories during the ensuing year.

Effective merchandise control in the food business depends on the frequency with which inventories (at retail prices) are taken. A good minimum for all departments is once each month. More effective control is obtained where the inventory is taken bi-weekly,

which is frequent enough for the dry grocery departments. For the departments dealing in perishables, the inventory should be taken at least weekly. Only a system of frequent periodic checks will minimize such possible sources of loss as excessive waste, spoilage, and pilferage.

Bookkeeping Methods

The bookkeeping system of food retailers will generally include the following records:

The Cash Book records daily cash receipts and disbursements, which are entered from daily cash reports supported by vouchers for the disbursements. The cash receipts record may also be used as the sales journal by providing the necessary columns. The cash disbursements record will include payments for merchandise bought for cash. To that extent it takes on the added function of a purchase journal. Where this occurs, additional columns are designated for entering the retail values of the merchandise purchased.

The Purchase Journal is a detailed record of all purchases made. It frequently serves also as a creditor's record. Additional columns are used to enter the selling values of merchandise invoices. Sometimes this journal is used for credit purchases only, the cash purchases having been entered in the cash book as described above. A file of vouchers, properly cross-indexed is used.

The Creditor Record consists merely of a file of paid vouchers properly cross-indexed, when the voucher system is used. When an accounts payable ledger is maintained, there is a detailed record supported by files of paid and unpaid bills.

The Inventory Ledger is dispensed with in small businesses, since the cost of maintaining it does not justify its use. As the businesses increase in size with an attendant increase in volume, a modified perpetual inventory system may be used. Only entries of receipts of goods and inventory balances will appear from which can be computed the amount of each item sold during any period between inventories. This information becomes more and more desirable as the volume increases since the problem of contracting for future needs must be met. The inventory ledger then also serves the purpose of providing a basis for estimating future requirements.

The Property Ledger contains detailed records of all fixtures

and equipment. Its form provides for entries of depreciation and current values, serving for insurance and tax purposes.

The Payroll Record gives the necessary data to comply with the requirements of the social security and unemployment insurance laws and to determine insurance premiums based on payrolls.

The General Ledger controls all other ledgers and records; contains record of assets, liabilities, capital and surplus, detailed income, and expense accounts. The balance sheet and operating statement are prepared from these records.

The General Journal is used for all entries and adjustments that may arise for which no other record book provides. Inventories, depreciation, and closing entries are entered therein.

Transactions are posted from records and books of original entry in the usual manner adopted in good accounting systems. The inventory records, although the form common to retail merchandising, will not indicate the sales as they are made. Total sales of each item can be computed at the end of each inventory period if desired. The cost of maintaining such a record currently would be prohibitive. Where the cash book and purchase journal are both used to record purchase of merchandise care must be used to prevent duplications. The computation of selling values is not subject to accounting controls and therefore requires careful test checking. No accounts receivable records subject to accounting controls are maintained as a general rule. A card system or running balance file system is commonly used and merits attention to insure collection of accounts.

ACCOUNTING FOR RETAIL FURNITURE DEALERS

By

JULIUS D. KAHN *

BRIEF DESCRIPTION OF BUSINESS

A retail furniture store is primarily a local business which caters to its local community. Its size varies. Small stores carry merely a stock of linoleum, bedding, and a smattering of novelties; large stores operate several branches, each with a complete line of merchandise. Chain organizations controlling numerous stores generally operate outside of large cities. Certain dealers operate showrooms and sell through canvassers purporting to sell from factory to consumer. The larger and even medium-sized stores operate warehouses from which all deliveries are made and merely carry a representative line of samples at each branch store which is merchandised to cater to the needs of the particular community in which it is located. Certain stores operate such departments as electrical appliances, radios, floor coverings, house furnishings, clothing, optical, jewelry, used furniture (consisting of trade-ins and repossessed merchandise), and the contract department (catering to builders and furnishing complete model homes, lobbies for theatres, etc.). These departments may be operated directly or may be leased to others on a concession basis, which is usually a percentage of sales.

The merchandise sold consists of bedrooms, living rooms, dining rooms, bedding, floor coverings, breakfast and kitchen sets, radios, electrical appliances (such as refrigerators and washers), and miscellaneous, which consists of juvenile sets, occasional chairs, mirrors and lamps, stoves and ranges, carriages, novelties, etc. Merchandise may be purchased from factories, jobbers, and commission merchants. Factories which supply case goods consisting of bed-

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rooms, dining rooms, dinettes, and novelties, are generally located in the South and Middle West; those in the South sell low priced merchandise, while those in the Middle West produce a better grade. Merchandise other than case goods—living room; bedding, etc.—are purchased primarily locally. Merchandise damaged in transit and other claims are either handled directly by a traffic department or given to independent claim agencies. Several buying groups or syndicates are available to stores conforming to certain rating requirements. Through these groups purchases may be made at quantity discounts for a stipulated annual fee. The main service of the syndicate, however, is advisory.

Selling

Advertising media used are: newspapers, circulars, car and outdoor advertisements, broadcasting, unlimited telephone calls following up prospects, window dressing, signs, posters; store promotional sales, such as loss leaders and dollar sales; inducements to buy, such as gifts and premiums with purchases over a certain amount, and such schemes as "coupon bonds" and "dividend checks" issued to former customers and redeemable as a credit against future purchases of a stipulated minimum value. The advertising department is usually under the supervision of an advertising manager with a staff of clerks. The selling staff consists of salesmen and sales manager, who in most cases acts as T. O. Man (turnover or takeover of a customer from another salesman). The selling staff is compensated by salary plus commission. Extra commissions called spiffs or P.M.'s are sometimes given for certain designated merchandise that is sold so as to push slow-moving items, or for clearance purposes.

An important aid in selling is the arrangement of the floor plan with proper merchandising offering selections at various price ranges in line with the desires and purchasing power of the community. A dealer may sell (1) on a cash basis only, or (2) cash and charge accounts (30- 60- or 90-day accounts), or (3) cash, charge, and installment.

Selling policies for installment sales vary as to amount of down payment required, terms and length of sale, and prices, which, in turn, are based upon the particular installment plan adopted. Various terms are used to describe credit arrangements in order to

avoid using the term "installment" among which are "Budget Plan," "Deferred Payment Plan," etc. The customary method of pricing merchandise is the cash basis price and an interest or carrying charge is added for the privilege of installment payment. Allowances are sometimes given for old merchandise traded in.

In describing the operations of the business, it is important to understand the various transactions that may occur which includes:

1. Cash received before delivery of merchandise—Deposits and C.B.D.'s (cash before delivery)
2. Cash received at time of delivery of merchandise—cash sales, and C.O.D.'s (cash or collect on delivery)
3. Merchandise delivered and no cash received—charge sales and installment sales

Sales comprising these transactions are classified as to (1) cash sales, (2) charge sales, and (3) installment sales.

All sales may be further classified as follows: (1) new (no previous purchase ever made), (2) add-on (previous purchase made but balance still due), and (3) reopen (previous purchase made and no balance due).

The contract forms generally used to protect the dealer against losses and to acquire the right to repossess the merchandise in case of default in payments are:

1. Conditional Sales Contract which provides that title to goods sold and delivered into the possession of a customer shall be retained by the seller until the total price is paid.

Note: A lease agreement contract is sometimes used providing for rental payments until merchandise is paid in full. In most jurisdictions, such contracts are held to be conditional sales contracts.

2. Chattel Mortgage, under which title to goods sold passes immediately upon delivery of the merchandise with the condition that if the customer defaults in any installment payment the entire balance becomes due and payable and the seller acquires the right of repossession. It creates a lien as security for the debt.

Generally, both must be filed to be valid and effective as against third parties, but most dealers only file when circumstances seem to demand it. Most stores obtain wage assignments in addition to one of the above.

Credits and Collections

The credit and collection departments are the most important in a retail furniture store and are usually quite extensive in their

operations. Texts have been written on this phase of the business alone. After an installment sale is consummated the customer is taken to the credit department. Briefly, the credit department interviews the customer, approves applications, arranges contract terms, and investigates credit references through the following mediums: credit clearing houses, personally, phone, correspondence, outside investigators. It authorizes refunds, approves add-on's, and maintains credit files. Briefly, the collection department checks arrears, follows up delinquencies, adjusts accounts, and contacts customers through the following mediums: personal outside collectors, telephone, collection follow-up letters, correspondence. It arranges changes in contract terms, supervises outside investigations, orders repossessions, investigates "skips," and supervises legal matters, such as claims to attorneys, and preparation of cases for trial. It is a frequent practice to require all payments to be made at the store. This practice brings the customer in touch with the merchandise on display and often promotes further sales. Merchandise pulled or repossessed is either resold through a used furniture department, sold at auction sales, or sold to outside used furniture dealers.

Deliveries

All deliveries are made through the warehouse where merchandise is departmentalized to facilitate filling of orders. Trucks are routed during the week to cover all sections of the community where deliveries are to be made. Certain dealers find it more economical to hire trucks on a contract basis. The warehouse also contains the repair and polishing department where the merchandise is polished and prepared for delivery, damaged merchandise is repaired, and mechanics handle all complaints.

Financing

Emphasis must be placed upon the fact that installment selling is a combination of merchandising and consumer banking. A retail installment furniture store requires a large amount of capital to finance large inventories and installment accounts receivable. Tables have been prepared showing the amount of capital required adjusted under varying volume of business and credit policies depending upon amount of down payments, length and terms of payments, etc. Where the volume of installment sales increases beyond the capital invested or available from bank loans, individual

accounts are sometimes sold to finance companies who specialize in installment furniture accounts. Most finance companies require holdbacks, and their rates are higher when sold without recourse than with recourse. Some finance companies investigate the credit risk and collect payments directly from customers.

THEORY OF ACCOUNTS

In ordinary accounting theory a sale is not a sale until title passes. However, in installment accounting a sale takes place when delivery of the merchandise is made even though title to merchandise sold under a conditional sales contract does not pass until payment is completed. Sales tickets written prior to delivery of merchandise are mere orders and should not be treated as sales until deliveries are made. Any deposits paid thereon should be treated on the books as a liability to the customer and shown on the balance sheet as Deposits on Undelivered Contracts.

There are two methods of reporting profits and losses on installment sales:

1. Ordinary accrual basis when profits on installment sales are taken during the period in which the "sale" (delivery) is made.
2. Installment basis where profits on sales are taken during the period on only that portion of the total sale for which cash has been collected. Each collection is treated as part a return of cost and part profit.

To conform to the installment basis of accounting, each collection during a given period is allocated to the year in which the sale was made, and the gross profit percentage earned for each particular year is applied to the collections for each year. The sum of the products obtained represents the gross profit realized for the period.

There are several theoretical methods of handling pullbacks or repossessions which must be distinguished from return sales. Returned sales are returns of merchandise sold where full credit is given the customer and the goods are placed in stock at their original value. Where goods are repossessed for nonpayment, the customer's account is closed out and a distinct profit or loss is recognized on the transaction. Under accepted practice, the merchandise pulled is set up on the books at an "appraised value," which is usually an amount which will allow a normal margin of profit on the resale of the goods after allowing for reconditioning costs. Under the accrual basis of reporting income, the difference between this

value and the amount owed by the customer is considered a loss. Under the installment basis, the loss of repossessions is the cost of the goods unrealized (cost of goods sold percentage multiplied by balance of customer's account at time of pull) less the appraised value of merchandise repossessed.

The net results under both the accrual and installment basis are eventually the same, but under the accrual basis profits are anticipated, whereas under the installment basis, profits are reported as realized through collections. Hence, the profits reported on the operating statement will vary as between periods depending upon which method is used. This is best shown by the following hypothetical illustration:

EXAMPLE:	Sale—Installment Contract	$400.00	—100%
	Cost of Goods	240.00	— 60%
	Gross Profit	160.00	— 40%
	Cash Collected up to Time of Pull	200.00	
	Value of Merchandise Repossessed	80.00	

METHOD I. ORDINARY ACCRUAL BASIS

Gross Profit—Reported in full in period of "sale"		$160.00
Loss on Repossession—Reported in period in which merchandise was repossessed:		
Balance due from customer at time of pull	$200.00	
Less: Value of Merchandise Pulled	80.00	
Net Loss on Pull		120.00
Eventual Net Profit on Transactions		$ 40.00

METHOD II. INSTALLMENT BASIS

Gross Profit—Reported during collection period (40% of $200.00)		$ 80.00
Loss on Repossession—Reported in period in which merchandise was repossessed:		
Cost of Merchandise Unrealized (cost of goods sold percentage times balance due from customer —60% × $200.00)	$120.00	
Less: Value of Merchandise Pulled	80.00	
Net Loss on Pull		40.00
Eventual Net Profit on Transactions		$ 40.00
Proof of Eventual Profit on Transactions:		
Cost of Merchandise Sold		$240.00
Less: Cash Collected	$200.00	
Value of Merchandise Repossessed	80.00	
Total Received		280.00
Net Profit on Transactions		$ 40.00

Under Method II illustrated above, only the gross profit percentage on installment sales must be used. Profits on cash sales are reported in full under both methods.

Oddly enough, accepted practice in the retail installment furniture business consists of a combination of both methods inasmuch as the current analysis of cash receipts involves a large amount of clerical work. Monthly operating statements are prepared on the accrual basis, and the installment basis is employed at the end of the year for tax purposes. The transition is made by the following simplified method: a reserve is set up which represents the unrealized amount of gross profit on the installment accounts outstanding. The amount of the reserve is determined by analyzing the installment accounts receivable at the end of the year according to the year of sale of each account and applying to the total for each year the average rate of gross profit for that year. The reserve under this method which is called Reserve for Uncollected Gross Profits on Installment Sales, or a similar designation, should be carried as a part of surplus and not deducted from Accounts Receivable on the balance sheet. For income tax purposes, adjustment of the reserve representing the difference between the reserves at the beginning and end of the taxable year is considered an increase or decrease of taxable profit. The annual operating statement is also prepared on the accrual basis. After the net profit is obtained an adjustment is made adding or subtracting the net decrease or increase in the reserve for uncollected gross profits as the case may be to arrive at the final net profit for the year on the installment basis. At the end of the fiscal year, the accounts are closed on the accrual basis, and the deferred profit is taken up by a transfer to the Reserve for Uncollected Gross Profits on Installment Sales from the Surplus account. The entry setting up the reserve at the end of the previous fiscal year is put back into the Surplus account.

It is important to maintain consistently the various methods and theories of accounting employed.

Practically all stores seek the following from their accounting:

1. An analysis of sales by departments showing amount of sales, costs, gross profits, and gross profit ratio for each department

2. The allocation of operating expenses to departments (expense departments) are predicated upon the following essential compo-

nent parts of a store's operations: (1) advertising, (2) selling, (3) handling and warehouse, (4) delivery, (5) credit and collections, (6) occupancy, (7) office, and (8) administrative.

(It is customary for department stores to distribute the totals of the above expenses by departments among the various merchandise departments to arrive at the net profit from operations from each merchandise sales department. Other retail furniture stores do not, as a rule, allocate expense departments to sales departments.)

Where several stores are operated with a central warehouse, the handling, warehouse, and delivery expenses are prorated on either of the following bases whichever is more practical and equitable under the circumstances: (1) an estimated flat amount monthly prorated among the branches operated, the balance being applied to the main store, (2) prorated monthly in full among all stores operated on the basis of merchandise handled—sales, returns, pulls, pickups, etc., at cost or selling price; number of deliveries; etc.

Similarly supervision and buying expenses are allocated to the various stores. This is usually accomplished by charging each branch a flat amount monthly based upon its estimated proportionate share of these expenses. To facilitate bookkeeping, a flat monthly charge is generally made to each store to cover all the administration costs applicable to it incurred by the main store, such as warehouse, handling and delivery, office expenses, supervision—salaries, buying, etc.

3. Statistics offering comparisons and analyses of business operations. These include the following:

1. Percentage of the total of each expense department to total net sales
2. Net direct time selling cost based on percentage to net sales (add credit and collection departments' salaries and expenses, losses on bad debts, and loss on repossessions, and subtract the total of carrying charges and recoveries from bad debts)
3. Percentage of net sales by departments to total net sales
4. Gross profit percentage by sales departments
5. Percentage of inventory by departments to total inventory
6. Annual turnover by departments (divide cost of sales of each department by average inventory of that department)
7. Rate of installment collections (divide installment collections, exclusive of cash sales, down payments, and repossessions, by the installation accounts receivable balance at the beginning of the month)
8. Accounts receivable at end of year to annual net sales
9. Average balance of installment receivables at close of year (installment receivables divided by number of such accounts)

10. Average open-credit charge account balance at end of the year
11. Rate of down payments to annual net installment sales (divide cash received as down payments, plus trade-in allowances accepted as down payments, by annual net installment sales)
12. Rate of unpaid balances of accounts repossessed during the year to annual net installment sales
13. Rate of bad debts charged off during the year to annual net sales (divide bad debts excluding unpaid balances of accounts repossessed, by net sales excluding cash sales)
14. Direct taxes to sales (exclude real estate taxes)
15. Average cost per delivery (divide total delivery expenses by number of deliveries made during the year)
16. Ratio of past due accounts at end of year to total receivables
17. Ratio by months of installment receivables analyzed according to last payment dates to total installment receivables
18. Rate of cash, open account, and installment sales to total net sales
19. Amount of average sale during the year (divide net sales by total number of sales during the year)
20. Average annual sales per employee (consider only active employees)
21. Analysis of sales by salesmen showing amount of sales, costs, gross profit, rate of gross profit. (*Note:* T.O.'s are apportioned)
22. Store rental expense to net sales
23. Warehouse rental expense to net sales
24. Total payroll to annual net sales
25. Selling salaries and commissions to annual net sales
26. Average payment per customer (divide total collections by number of payments)
27. Sales rejected classified by reason, size, terms, etc.
28. Amount, number, and average sales as to new accounts, add-on's, re-open's
29. Reclassification of all expenses by natural divisions, such as salaries, rent, etc.
30. Statement showing sources and application of funds

The following features require special comment:

Markdowns

The retail method of accounting applicable to department stores, does *not* generally apply to other retail furniture stores and should not be confused. Markdowns ordinarily are not considered until the end of the year. However, markdowns taken periodically during the year may be carried in memorandum accounts as a deferred charge to expense and credited to a Reserve for Markdowns or Inventory Adjustment to reflect reduction in inventories.

Forfeited Deposits

Two methods may be used for deposits on hold orders or notifies deemed forfeited at the end of the year. They may be:

1. Written off in full to other income
2. Transferred to a suspense account to which is charged deposits finally applied and the balance may be written off to other income as follows:
   a. Over a period of years depending upon the experience of the store
   b. Over the statute of limitation period

(The first method is generally used)

Trade-ins

Trade-ins may be handled in one of the following ways:

1. Allowance is given on sales price of goods sold and no value is placed on the merchandise traded in
2. No profit or loss is considered on trade-ins; the value of merchandise traded in is set up at the amount of credit allowed for trade-in. Under this method, merchandise traded in is treated as a part payment on the sale in lieu of cash
3. Profit or loss on trade-ins taken up in the accounts representing the difference between the appraised value which will allow a normal markup on the resale of the merchandise traded in and the amount of credit allowed

(The first method is generally used)

Bad Debts

The method of treatment of bad debts depends upon the basis used for reporting profits and losses. Under the ordinary accrual method, either the direct write-off or the reserve method may be used. If the reserve method is used, losses on repossessions should also be taken into consideration. If the installment basis of reporting income is used, the reserve method is not permitted for income tax purposes. However, under the generally accepted practice whereby profits on installment sales are taken up in full and adjustment for the installment basis is made only at the end of the year for tax purposes through the Surplus account, then a reserve for bad debts and losses on repossessions may be set up through the Surplus account for balance sheet purposes. In such cases, the Reserve for Unrealized Gross Profits on Installment Sales is shown as part of the Surplus account.

If the strict "installment basis" method is followed throughout the year and no income is considered realized prior to collections, which would preclude a provision for bad debts, under conservative accounting theory, a proper allowance for losses on repossessions should be provided where the average value of goods repossessed does not equal the cost of the goods unrealized (balance of customer's account less the reserve for unrealized gross profits). See Method II illustrated above.

Accommodation Sales

Dealers occasionally accommodate each other with merchandise for which no charge or a small handling charge (usually 10 per cent) is made. These accommodations should not be treated as sales, and any profit on accommodations should be handled as other income.

Allowances

Allowances made to customers for price adjustments, or complaints as to quality, service, etc., should be charged against the respective sales accounts, or to a special account Sales Allowances and treated as a deduction from Sales. Discounts allowed to customers for cash payments and allowances made for interest or carrying charges if the account is paid up within a stipulated time should be treated separately as a deduction from the carrying charges on the operating statement.

Accounts Required

Sales

The analysis of sales by departments, showing amount of sales, costs, and gross profits is handled by the use of supplementary records and is not a part of the general ledger which shows only the main division as to cash sales, charge sales, and installment sales.

A typical analysis of sales by departments follows: living room; bedroom; dining room; bedding (includes springs, mattresses, studios, daybeds, etc.; floor coverings (may be further divided as to hard-surface goods and soft-surface goods); sun room; juvenile and nursery; breakfast and kitchen sets (may include iceboxes); miscellaneous (which may be further subdivided as desired to cover: occasional chairs and pieces, stoves and ranges, mirrors, lamps, and shades, house furnishings, such as draperies and curtains etc., novelties, second-hand promotionals, other miscellaneous furniture); radio and accessories; electrical appliances (refrigerators, washers, and ironers) etc., etc.

Merchandise Costs

The cost of merchandise sold is provided by the following accounts:

1. Purchases—Net: invoice cost after deducting trade discounts (except cash discounts), returns, allowances. Advertising allowances should be excluded and credited to advertising expenses. Freight and damage claims paid

and received should be excluded and treated under other income or deductions as a net figure.

2. Freight and express inward
3. Appraised value of repossessions
4. Appraised value of trade-ins (where used)
5. Cost of accommodation sales (deduction)
6. Buying expenses: compensation: buyers and assistants, stenographers, etc. Taveling: trips to markets and factories. Other buying expenses: buying services; buying office expenses: rent, telephone and telegraph, light and heat, stationery and supplies, insurance, and other expenses chargeable to the buying department.

(Certain stores merely charge direct buying expenses, such as salaries and buying services; other expenses are distributed among the operating expense departments. Certain stores even go further than that and charge all buying expences to the various operating expense departments.)

The operating expenses are classified according to operating departments as follows:

Advertising

Compensation: advertising manager, assistants, floor and window display personnel. Space costs: ads—newspapers, car and outdoor, billboards, radio broadcasting. Allowances from sources of supplies. Other advertising expenses: printing, direct mail circulars, stationery and supplies, postage, advertising services, display materials, signs, posters, etc., premiums, gifts, etc.

Selling

Compensation: salaries, commissions, bonuses, and extra commissions, to salesmen and floor managers. Other selling expenses: entertaining, fares, car expenses and depreciation where used for selling purposes, etc. (Certain stores prefer to treat only compensation items under the selling division on the operating statement and distribute the other expenses among the other operating expense departments.)

Handling and Warehouse

Compensation: warehouse employees, service department personnel. Service department expenses: polishing and repair materials and supplies. Other handling expenses: packing and shipping supplies, fares and car allowances. Warehouse occupancy expenses: rent (or equivalent if owned), light, heat, and power, water, repairs and building maintenance, depreciation on warehouse fixtures —improvements—alterations, warehouse insurance, taxes, etc.

(Certain stores include warehouse occupancy expenses together with store occupancy expenses under the general heading Occupancy. Where a separate warehouse is maintained, as is usually the case, warehouse occupancy and store occupancy expenses should be segregated. Other stores further segregate handling, and warehouse expenses; however, as the two are so closely allied it is practical to combine them under the same divisional heading and itemize the detailed expenses.)

Delivery

Compensation: truckdrivers and helpers. Truck expenses: gas, oil, garage, tires, repairs and maintenance, licenses and taxes, insurance, depreciation. Other delivery expenses: hired trucks, freight and express outward, etc.

Credits and Collections

Compensation: salaries of managers and assistants, outside collectors. Credit and collection office expenses: credit agencies, reports, stationery and printing, postage, legal, etc. Outside collection expenses: fares and car allowances—collectors, miscellaneous. (Although the credit department expenses and the collection department expenses may be classified under separate division headings, they are usually combined.)

Occupancy [1]

Compensation: maintenance (porters, janitors, elevator operators, watchmen, etc.). Store occupancy expenses: rent (or equivalent if owned), taxes (realty, water, personal property, etc.). Light, heat, and power, repairs, supplies, maintenance expenses, insurance, depreciation (building fixtures and improvements and alterations).

Office

Compensation: accounting, stock record clerks, general office clerks and assistants. Office expenses: stationery and printing, postage, telephone and telegraph, miscellaneous office supplies and expenses, depreciation (office furniture and fixtures).

(This department is sometimes combined with administrative division.)

[1] Store only.

Administrative

Compensation: officers and executives. General expenses: taxes—corporate and business, payroll (where not distributed among departments), dues and subscriptions, contributions and donations, traveling (other than charged to buying expense department), professional fees, insurance (where not distributed to other departments), general and miscellaneous expenses.

Accounts handled as other income or other deductions include the following:

Other Income

Carrying charges—less: discounts and allowances; discounts earned; interest earned; P. and L. recoveries—Cash; P. and L. recoveries—merchandise; gross profit on accommodation sales; rentals—leased departments; freight claims—net; other miscellaneous income.

Other Deductions

Losses on repossessions; losses on trade-ins; bad debts; interest paid; etc.

If desired, the above accounts classification can be advantageously coded for indexing purposes. The general practice is a simple numerical sequence numbering system allowing for subsequent numbers for additional accounts after each main classification and subsections.

Operating Statement

It is customary to prepare the operating statement in condensed form with detailed supporting schedules. They are also usually comparative: current month—this year; same month—last year; current year to date; last year to date. Interim monthly reports are prepared by departments from the cost records as follows: sales, costs, and gross profits, and a book inventory is arrived at for the balance sheet.

It is the conviction of some accountants that the total cost of goods sold properly includes all costs incident to placing goods in a salable condition on the retail floor. They advocate operating statements showing a gross trading profit which takes into consideration the functional costs of distribution and include as part of the Cost of Merchandise Sold, in addition to the net invoice cost,

freight in, and buying expenses, the cost of receiving, handling (inward), marking, repairing and finishing supplies, store and warehouse occupancy, and losses on trade-ins. From Net Operating Profit (after deducting the operating expenses) is deducted the Net Direct Time Selling Cost (see explanation under ratios, item 2) to arrive at the Net Profit for the Period. This, however, is not the general practice.

The customary form of operating statement follows:

PROFIT AND LOSS STATEMENT

SALES:

Installment Sales	(Less Returns)	Supported by schedules showing department details
Charge Sales	(Less Returns)	
Cash Sales	(Less Returns)	

TOTAL NET SALES

COST OF GOODS SOLD:
- Inventory at Beginning
- Purchases
  - Less: Returns and Allowances
    - Cost of Accommodations
  - Net Purchases
- Freight In
- Appraised Value of Merchandise Repossessed
- Appraised Value of Trade-ins (where used)
- Buying Expenses
  - Total Cost of Merchandise Available for Sale
  - Less: Inventory at End

COST OF GOODS SOLD

GROSS PROFIT ON SALES

OPERATING EXPENSES:

Advertising	(These divisions are supported by detailed schedules)
Selling	
Handling and Warehouse	
Delivery	
Credit and Collection	
Occupancy	
Office	
Administrative	

TOTAL OPERATING EXPENSES

NET PROFIT FROM OPERATIONS

OTHER INCOME (Supporting Schedule)

TOTAL INCOME

OTHER DEDUCTIONS (Supporting Schedule)

NET PROFIT FOR PERIOD—ACCRUAL BASIS

ADD OR DEDUCT: Adjustment in Reserve for Uncollected Gross Profits on Installment Sales

NET PROFIT FOR PERIOD—INSTALLMENT BASIS (before Income Tax)

Provision for Federal Income Tax

NET PROFIT FOR PERIOD TRANSFERRED TO SURPLUS

BALANCE SHEET

ASSETS

Current Assets:
- Cash in Banks
- Cash—Change Funds
- Cash—Petty Cash
  - Total Cash
- Accounts Receivable—Installment
- Accounts Receivable—Charge
- Accounts Receivable—Others
  - Total Receivables
- Merchandise Inventory
- Notes Receivable
- Loans Receivable
  - TOTAL CURRENT ASSETS

Investments:
- Securities—Stocks and Bonds
- Life Insurance—Cash Surrender Value
  - TOTAL INVESTMENTS

Fixed Assets:
- Warehouse Building or Leasehold
- Store Building or Leasehold
- Store Fixtures and Improvements
- Warehouse Fixtures and Improvements
- Office Furniture and Fixtures
- Delivery Equipment—Trucks
- Automobiles
  - TOTAL FIXED ASSETS

Deferred Charges:
- Unexpired Insurance
- Prepaid Expenses
  - TOTAL DEFERRED CHARGES
  - TOTAL ASSETS

Liabilities and Capital

Current Liabilities:
- Accounts Payable—Trade
- Accounts Payable—Others
- Notes Payable—Bank
- Notes Payable—Others
- Loans Payable
- Accrued Taxes Payable
- Accrued Expenses

Total Current Liabilities

Fixed Liabilities:
- Mortgages Payable (if any)

Customer's Deposits:
- Deposits on Undelivered Orders—Current
- Deposits on Undelivered Orders—Suspense

Total Customer's Deposits

Reserves:
- Reserves for Depreciation:
  - Warehouse Building or Leasehold
  - Store Building or Leasehold
  - Store Fixtures and Improvements
  - Warehouse Fixtures and Improvements
  - Office Furniture and Fixtures
  - Delivery Equipment—Trucks
  - Automobiles
- Reserve for Bad Debts

Total Reserves

Capital:
- Preferred Stock
- Common Stock
  - Total Stock Outstanding
- Reserve for Uncollected Gross Profits
- Surplus

Net Worth

Total Liabilities and Capital

Bookkeeping Methods

Because of the immense amount of detailed transactions, the books of original entry are segregated to cover the various types of transactions so that the routine office work can be divided among various clerks. Hence, you will usually find separate records for purchases-merchandise, purchases-expenses, purchase credits—re-

turns and allowances, transfer journal for interstore charges—merchandise and expenses, claims records, sales-cash, sales-charge, sales-installments, sales credits—returns, repossesions, trade-ins, cash receipts, cash disbursements, petty cash—warehouse, petty cash—stores, payroll record, journal, etc., with proper columnarization to provide the necessary information to conform with the chart of general ledger accounts classication in use. In addition, there are numerous supplementary records, such as costs—cash, charge, and installment (where not incorporated in regular books of entry); sales analysis by departments and by salesmen (where not incorporated in regular books of entry); sales tickets control to account for numerical order of all sales slips; schedules of accounts receivable and payable ledgers; etc.

Accounts Receivable

Small stores maintain accounts receivable records in (1) loose-leaf ledger form, (2) kardex system, and (3) on collection cards for use by outside collectors. Large stores resort to machine bookkeeping. The cash register type of machine is used which serves as a combination cash register and posting and entering machine. It is adapted to the installment type of business and is similar to that used by savings banks. Four original records are printed at one time: (1) the customer's pass book, (2) ledger record (loose-leaf card), (3) audit sheet (chronological record of all entries made), (4) voucher or slip used in merchandise returns, sales analysis, etc. All entries are proved daily and the ledgers are in balance at all times. Daily control information is also made available by this procedure, and provides the necessary totals to fill in the Daily Statement.

The kardex system is a visible index of installment customers' accounts and is a convenient reference when customers' balances are sought by others than the bookkeeping department. It is also very useful for its tab system which lists the 31 days in a month and provides colored tabs for markers indicating different purposes for following up collections and delinquencies.

Accounts Payable

Large stores use bookkeeping posting machines for accounts payable records whereby postings are made to loose-leaf ledger cards kept in trays. The voucher system which eliminates the accounts

payable subsidiary ledger is used by most department stores, but not as a rule by other retail furniture stores.

Periodic surveys of the office procedure should be made to provide and maintain internal check so as to control transactions and prevent errors.

Forms

Forms of various types and purposes are used profusely to control the numerous routine store transactions, and may serve as a basis for entries in the books of original entry or compilation of supplementary information and records. The following is a list of some of the various forms used:

Door Sheet (daily) records all customer calls and shows: salesman, merchandise interested in, T. O.'s (first, second, third), whether sold, if not, reasons, if new customer and if recommended, etc. This is important for management study.

Call Sheet records details of selections by an undecided customer where no regular sales ticket can be written, in event customer returns.

Sales Tickets are used for cash, charge, and installment customers. There are practically as many different forms as there are stores. Some stores imprint thereon the conditional sales agreement, application information, etc.

Customer's Short Order Tickets are used for merchandise not available for delivery and to be shipped subsequent to other merchandise.

Daily Sales Analysis is a compilation summary of sales, sales returns, and costs on sales and returns and totals summarized in sales book, and is used where the details mentioned are not entered directly in the sales book.

Investigation or Application Blank contains complete details for use by credit department in checking customer.

Customer's Pass Book is retained by customer and shows amount of purchase, payments made, balance due. Usually contains the store rules and regulations as to payments, complaints, etc.

Collection Cards serve as transcripts of customer's account for follow-up use by outside collectors.

Daily Collector's Collection Report summarizes collections made by outside collector.

The Correspondence Ticket records all special and form follow-up letters listed by numbers to customers for delinquencies, complaints, etc. Filed with customer's folder by account number.

Route Sheets are used by drivers for routing deliveries and reporting C.O.D. collections. Separate form may be used to list actual C.O.D. collections.

Adjustment Ticket is used for repairs, complaints, etc., by service department.

Receipt Book contains perforated receipts given to customers for cash received.

Daily Cash Sheets record store collections and serve as a posting medium to customers' ledger. A daily cash report or statement contains a summary of the day's collections, and other transactions sent to the main office for entry of details in totals. Where a cash register machine is used the daily statement is compiled from the machine tabulations.

Purchase Order Ticket is used when placing orders with factories, jobbers, etc.

Confirmation of Order confirms purchase order.

Receiving Slip records incoming merchandise and for verification of creditors' invoices.

Credit Memos records merchandise returned to creditors.

Claim Memos records allowances and claims on purchases, freight, etc.

Tag List records merchandise to be picked up from warehouse to store, vice versa, or interstore.

Stock Transfer Ticket records actual movements of merchandise interstore or to or from warehouse.

Countermand Ticket records changes on any order for movements of merchandise.

Pick Up Order used when picking up merchandise by driver outside of store.

Stock Records may be kept in (1) sheet form for loose-leaf binder or (2) card form for trays or containers, with a varied color scheme to differentiate each store and warehouse record cards. Records orders placed, merchandise received, merchandise delivered, and merchandise reserved for "notifics" or "hold orders." Supplies cost information for cost records. Freight paid for a bulk lot should be apportioned on a valuation basis and not a unit

basis. Some stores use a code system for costs when tagging merchandise. Perpetual inventory records are maintained by practically all stores both small and large.

Inventory Summary Sheets are usually compiled monthly from stock records and show: quantities purchased, sold, and on hand for each type of merchandise and is also used as a guide by the buying department. It should be checked and verified periodically usually semiannually and at least annually with separate inventory sheets taken of physical stock.

A special feature of the filing system for retail furniture stores applies to customers' records. A manila folder or jacket is maintained for each customer containing all records, papers, etc., pertaining to that customer and includes a copy of sale, investigation record, correspondence, chattel mortgage, or conditional sales contracts, etc.

ACCOUNTING FOR THE RETAIL LUMBER TRADE

By

ROGER A. SEEBE *

BRIEF DESCRIPTION OF BUSINESS

Retail lumber dealers are engaged primarily in buying and selling lumber without performing any processing operations on the product. Occasionally, however, some work must be done on the lumber, such as sawing to size, planing, or kiln-drying.

Since there are numerous kinds of lumber, both as regards to type and intended use; many dealers specialize in only certain kinds as for example, heavy timbers, hard woods, or millwork. Many dealers, in addition to lumber, also sell sundry building materials, such as brick, roofing materials, cement, and hardware.

Retail lumber dealers are in one of the most intensely competitive fields. The chief cause of such competition has been ascribed to the fact that retail lumber dealers sell to contractors who themselves are competing against each other.

A very important factor in lumber dealing is grading and its effect on lumber values. All classes of lumber are usually available in several grades and may be already graded when purchased or may be graded by the dealer. The rules for grading are promulgated by the various national lumber associations, but are not uniform throughout the nation or for the various kinds of lumber.

THEORY OF ACCOUNTS

In general, retail lumber concerns, dealing in both lumber and other building materials, present no difficult accounting problems.

The essential divisions of accounting classifications are: (1) sales, (2) purchases, (3) yard handling expenses (both incoming and outgoing), (4) planing mill expenses (for any work performed

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on the product), (5) selling and delivery expenses, and (6) general expenses.

The accounts should show operating results separately for each major class of product handled. If there are branches, the accounts should also show operating results separately for each branch.

Sales and purchases can be readily ascertained by major classes of products. Likewise many of the expenses can be directly allocated to these classes of products. Numerous expenses, however, apply to all products, and these expenses must be equitably prorated if effective operating results by classes of products are to be obtained. The basis of such proration will depend upon the nature of the expenses and the class of product.

For lumber, a convenient and equitable basis for allocation is the unit of lumber measurement, the board-foot. A board-foot is a cubical unit and is the equivalent of a foot square and 1-inch thick, or $\frac{1}{12}$ of a cubic foot.

Retail lumber concerns must keep some form of perpetual stock record as it is important to know just what is on hand at any time before orders can be accepted. Such a record should be maintained in board-feet for each kind, size, and grade of lumber. Purchase and sales commitments should also be recorded on this stock record.

Lumber accounting lends itself readily to statistical recording by units of quantity. As far as possible all transactions, in addition to money values, should also show quantities in board-feet. Such a record in units of quantity gives an excellent medium of control and check of transactions during any period. Such a check, however, must not be expected to yield faultless results. There are a number of factors in lumber trading that would affect an exact tie-in by quantities, such as wastage in sawing and ripping, and the fact that some forms of lumber, such as mouldings, shingles and lath, are not expressed in board-feet measure.

Accounts Required

The general classifications of accounts required by the retail lumber dealer are as follows:

300. Sales
400. Purchases
500. Handling (or yard) expenses
520. Planing mill expenses

540. Delivery expenses
560. Selling expenses
580. Administrative expenses
600. Other income
700. Other charges

The suggested numerical classifications shown above allow for the use of the 100 and 200 series for assets and liabilities respectively.

Sales

Sales accounts should be subdivided into the major types of product handled by the dealer, such as:

301. Lumber
302. Millwork
303. Miscellaneous building materials
304. Mason materials
305. Hardware
306. Direct mill shipments
307. Coal

Purchases

Purchase accounts should be subdivided into the same classifications as sales, using the 400 series.

Handling Expenses

Handling expenses are those expenses incurred in handling the materials in the yard, including the unloading and stacking of the materials when received and the subsequent loading on trucks for delivery to customers. Subaccounts would be somewhat as follows:

501. Yard labor
502. Yard maintenance and repairs
503. Supplies
504. Demurrage
505. Handling equipment operation
506. Handling equipment depreciation

If more than one product is handled, the expenses should be further subdivided, where possible, by products. The numerical classifications can be extended by using decimal subdivisions.

Planing Mill Expenses

Most retail lumber dealers have at least a planer and a circular saw for use when customers require odd sizes of lumber or when rough lumber must be planed. Subaccounts for a planing mill depend upon the amount of equipment in use, but might be as follows:

521. Superintendence and foremen
522. Mill labor
523. Supplies
524. Maintenance and repairs
525. Heat, light and power
526. Depreciation
527. Miscellaneous mill expenses
528. Sales of sawdust (credit)

Delivery Expenses

Most retail yards make delivery by trucks, which may be owned or hired. For owned trucks detailed daily operations records of each truck should be maintained. Subaccounts might be as follows:

541. Labor
542. Maintenance and repairs
543. Gas and oil
544. Hired trucks
545. Depreciation

Selling Expenses

The number of subaccounts necessary depends of course on the size of the organization. In general subaccounts may consist of the following:

561. Salesmen's salaries
562. Commissions
563. Salesmen's auto expenses
564. Traveling expenses
565. Advertising
566. Promotion
567. Dues and subscriptions

Administrative Expenses

Typical subaccounts for the average lumber yard are as follows:

581. Officers' salaries
582. Office salaries
583. Rent
584. Office maintenance
585. Telephone and telegraph
586. Postage, stationery, and supplies
587. Heat, light and water
588. Insurance
589. Taxes
590. Depreciation
591. Collection expenses
592. Legal and accounting fees
593. Donations

When a dealer maintains more than one yard, separate accounts should be kept, when possible, for each yard. The subaccounts for each yard might be designated by the use of lettered prefixes.

Operating Statements

In the following operating statement for a retail lumber dealer, the net sales and cost of sales should be shown separately for each major classification of product handled. This might be done by use of columns, one for each such classification; or by using a series of separate statements of gross profit for each such classification and finally a combined statement of gross profit.

Statement of Operations

Net Sales

Cost of Sales
- Purchases
- Increase in inventory (deducted)
- *or* Decrease in inventory (added)
- Planing mill expenses
- Dry-kiln expenses
  - Total

Gross Profit

Operating Expenses
- Handling (or yard) expenses
- Delivery expenses
- Selling expenses
- Provision for bad debts
- Administrative and general expenses
  - Total

Net Profit from Operations

Other Income
- Interest earned
- Discounts earned
- Miscellaneous gains
  - Total

Deductions from Income
- Interest cost
- Discounts allowed
- Miscellaneous losses
  - Total

Net Profit

Federal Income Taxes

Net Income

Balance Sheet

A representative balance sheet for retail lumber dealers might show the following items:

Assets

Current Assets
- Cash in Banks
- Cash on Hand
- Notes Receivable, Trade
- Accounts Receivable, less Reserve
- Merchandise Inventory

Other Assets
- Investments
- Nonoperating Real Estate
- Salesmen's Advances
- Employees' Notes and Accounts Receivable

Fixed Assets
- Land
- Buildings
- Machinery and Equipment
- Automobiles
- Furniture and Fixtures

(Buildings, Machinery and Equipment, Automobiles, Furniture and Fixtures — Less Applicable Reserves)

Deferred Charges
- Supplies
- Unexpired Insurance
- Prepaid Taxes and Interest

Liabilities and Capital

Current Liabilities
- Notes Payable
- Accounts Payable
- Accrued Payroll
- Accrued Taxes and Interest
- Dividends Payable

Long Term Debt
- Mortgage Payable

Capital Stock

Surplus

Most of the balance sheet items of the retail lumber dealer are found in the usual trade balance sheet and are self-explanatory. One of the items, merchandise inventory, presents some features peculiar to lumber trading and therefore requires comment.

The usual practise is to value the lumber inventory at cost or

market, whichever is lower. In a vast majority of cases lumber is purchased and billed on a delivered basis. Therefore regardless of the amount of freight paid, the billing price represents the total cost. In addition, the inventory price may include the costs of unloading and piling the lumber, which are usually estimated costs expressed in units of board-feet, based on cost studies. Likewise, the inventory value of lumber moved from one yard to a branch yard may include the cost of transferring and restacking. Such costs would also be estimated in terms of board-feet. If a dry-kiln is operated, the kiln-dried lumber inventory value would include dry-kiln costs, likewise expressed in terms of board-feet.

The various grades usually found in all kinds of lumber are a determining factor in pricing lumber inventory. If lumber is bought in mixed grades and is not graded until sold, particular care is necessary in pricing, since the unsold remainder of a mixed lot may consist of only the lower grades or only the higher grades. Some kinds of lumber have a wide range of values for the various grades.

Equipment lumber, such as covering boards, pile foundations, pile separating sticks, etc., is not included in the merchandise inventory. It is a part of the plant equipment.

Bookkeeping Methods

The bookkeeping system of a retail lumber dealer generally includes the following records:

The General Ledger contains all asset and liability accounts (some of which will be controlling accounts of subsidiary ledgers) which are usually written up by hand.

The Customers' Ledger contains customers' accounts, usually machine kept, the ledger sheet being a duplicate of the customer's statement.

The Operating or Expense Ledger contains detailed expense accounts. It may have a separate sheet for each subaccount, or may be in columnar form using the columns for subdivisions of primary subsidiary accounts. It is usually hand-written.

Cash Book

General Journal

The Sales Journal or Record contains details of each sale, including footage, distributed by class of sale. This record is usually

kept by machine. It may be a copy of customer's invoice, or may be a listing of total footage and amount of each invoice.

The Voucher Register contains in numerical order all invoices of purchases and expenses, showing distribution of charges and footage of lumber purchased.

Notes Receivable Record

Notes Payable Record

Employees' Payroll Record

Insurance Register

The Plant Ledger contains record of plant assets, including date of acquisition and cost. Such a record should be used much more extensively than it is at present.

Auto and Truck Record containing performance records of each vehicle, including lumber carriers.

Lumber Stock Record containing continuous records of quantities of all kinds and sizes of lumber carried in stock. Record should provide for showing purchase and sales commitments.

Receiving Record containing record of incoming shipments showing tally of count and grade. Such a record is quite important as discrepancies in both quantity and quality will often occur and adjustments with the vendors will be necessary. Occasionally disputes in grading are adjusted by licensed lumber inspectors supplied by the various lumber associations.

ACCOUNTING FOR SAVINGS AND LOAN ASSOCIATIONS

By

L. M. STERNRICH *

BRIEF DESCRIPTION OF BUSINESS

Savings and loan associations are financial institutions with either a Federal or state charter. They are semi-public, mutual organizations supervised by Federal or state departments soliciting the funds of the public and investing these funds in a manner governed by laws and regulations. Although the statutes governing the investment of savings and loan funds are not quite uniform, they usually permit the following investments:

1. First mortgage loans. (Statutes restrict the investment in mortgage loans in various manners, such as type of property, loan value of property, loans to members only, and size of loans.)
2. Loans on shares of the association.
3. Real estate. (Statutes restrict investment to certain types of real estate and real estate acquired for certain purposes or in a certain manner.)
4. Securities. (These are usually limited to legal investment for savings banks.)

Certain restrictions are imposed on the solicitation of funds. Savings and loan associations endeavor to attract funds which are intended for relatively permanent investment. They offer various plans to make systematic saving attractive, either by offering a reward to systematic savers or by imposing fines on nonsystematic savers. The earnings of savings and loans associations are usually higher than those of savings banks because of the relatively heavy investment in mortgage loans and the relatively small cash reserve requirements.

Activities consist of the collection of payments from members, the disbursement of funds to members, the collection of payments from mortgagors and other borrowers, the disbursement of loans,

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the payment of expenses, the servicing of mortgage loans and the supervision of real estate operations. The servicing of mortgage loans includes periodical inspections of the property, a follow-up plan for the payment of real estate taxes and insurance, or, as in case of F. H. A. loans, the operation of escrow accounts for the payment of taxes and insurance.

Theory of Accounts

The primary purpose of the profit and loss statement is to ascertain the amount available for dividends. The actual net profit from operations of a savings and loan association, because of several factors peculiar to this type of institution, is more subject to opinion than the determination of the net earnings of a purely commercial or industrial enterprise.

Interest, if unpaid at the due date, becomes a lien on the mortgaged property, and many associations include interest arrears for this reason among their earnings. The recent trend, however, has been to include only such portion of the interest among the income as has actually been collected or has not been past due more than 90 days. Advances for taxes and insurance made to borrowers are usually secured by the mortgage, and such advances are, therefore, recorded as assets rather than expenses.

If an association is forced to foreclose a mortgage, the interest arrears and the advances may be entered as part of the cost of the property, and, only after the property has finally been disposed of, can it be definitely ascertained whether accrued income represents earnings or whether advances represents expenses.

The treatment of interest income can best be compared with the treatment accorded to tax collections by a municipality operating on a cash basis for income. Interest is accrued periodically, usually monthly, and the reserve for uncollected interest is credited. At the end of the month, the reserve for uncollected interest is debited and interest income is credited for the amount of actual collections made during the month.

If the association has adopted the policy of including in its income all interest collections and interest arrears not more than 90 days past due, the procedure followed is different. In the latter case all collections are immediately credited to the Interest Income account; and, at the end of the month, the Interest Income account

is adjusted so as to make the balance in the reserve for Uncollected Interest account equal to all interest receivable more than 90 days past due.

Rent collections are usually recorded on a cash basis, and only memo accounts are maintained showing individual rent arrears. Only if rent collections are relatively large is a control account for rent arrears maintained.

Real estate operating expenses and general operating expenses of the association are usually recorded on the cash basis, except for taxes (real estate, personal property, and payroll), insurance expense, and compensation to directors, officers, and employees. The latter items, which are the major items of expense, are recorded on the accrual basis.

The income and expense of an association are relatively stable and therefore easy to budget. The income and expense accounts are classified in a manner to permit ready reference to budgeted items of income and expense, and asset accounts are classified according to type of investment risk.

Various regulations to which the association is subject prescribe that a portion of the net profit should be added to certain general reserve accounts periodically. The balance of the net profit is then transferred to the Undivided Profits account. Conservatism would dictate that ample provision be made for contingencies. A savings and loan association, however, is a mutual institution, and every member is entitled to receive the full share of his profits. A member who decides to surrender his shares loses his right to share in the undivided profits, and he is therefore interested to see that money earned during the time he is a member of the association is not unnecessarily held back from him. The association has, therefore, no right to assume an overconservative attitude and will usually distribute to its members as much of the net profit as sound business judgment will permit.

Accounts Required

It is just as important for the balance sheet of an association (usually referred to as the statement of condition) to reflect a complete analysis of its investment portfolio as it is for the operating statement to reflect clearly the income realized from investments and the expenses.

A few standard accounting systems have been developed for savings and loan associations. The chart shown below was prepared from the system recommended by the New Jersey Building and Loan League.

1000 Assets
1100 Mortgage Loan
1110 Direct Reduction Loans
1120 Sinking Fund Loans
1130 Straight Loans

Accounts 1110 to 1130 are subdivided as follows:

11 Homes 1-4 families and combination home and business not to exceed four families
12 Other improved real estate
13 Unimproved real estate
14 F.H.A. insured mortgages, Title II
1140 Subordinated liens
1150 Mortgage loans in foreclosure
1160 Properties in possession
1170 Accrued interest receivable (if separate)
  1171 Direct reduction loans
  1172 Sinking fund loans
  1173 Straight loans
  1174 Subordinated liens
1180 Accrued premium receivable (if separate)
1190 Advances for taxes, insurance, etc. (if separate) (Subdivided as account 1170)
1200 Other Loans
  1210 Loans secured by shares of the association
  1220 Accrued interest receivable (if separate)
1300 Real Estate Owned by Association
  1310 Real estate sold on contract
  1320 Real estate owned (other than office building)
  1330 Real estate equitably owned (in dummy holder)
1400 Investments
1500 Cash
1600 Other Accrued Receivables
1700 Fixed Assets
1800 Deferred Charges
1900 Other Assets
2000 Liabilities
  2100 Shareholder's account
  2110 Withdrawable or free private shares
  2120 Government subscriptions
  2130 Mortgage pledged shares
2200 Dividends declared and unpaid
2300 Notes and Other Accounts Payable
2400 Indebtedness on Real Estate

2500 Owed to Borrowers
2600 Other Liabilities
2700 Deferred Credits to Future Operations
2800 Reserves
  2810 Specific Reserves
  2820 For reward profit on shares
  2830 General Reserves
2900 Undivided Profits
3000 Income
  3100 Operating Income (segregated as shown in operating statement)
  3200 Nonoperating Income (segregated as shown in operating statement)
4000 Expenses
  4100 Operating Expenses
  4200 Operating Expenses
  4300 Interest Charges
  4400 Nonoperating Expenses

Operating Statements

Operating statements are now commonly prepared in the manner prescribed by the Federal Home Loan Banks.

Profit and Loss Statement

I. Gross Operating Income:
  1. Interest
    On mortgage loans—ordinary cash collections
    On mortgage loans—all other
    On loans on shares, passbooks and certificates
    On real estate sold on contract
    On investments and bank deposits
    Other
  2. Premium or commission on loans
  3. Appraisal fees, legal fees, and initial service charges
  4. Other fees and fines
  5. Real Estate operations:
    Gross income from operation of real estate owned
    Less—Cost of repairs, taxes, and maintenance
    Net income or loss
  6. Gross income from office building
  7. Dividends:
    On stock in Federal Home Loan Bank
    Other dividends
  8. Miscellaneous operating income
  9. Gross operating income

II. Less Operating Expense:
  10. Salaries, etc.:
    Compensation to directors, officers, employees, etc.
    Collection expense

11. Legal services—retainer, traveling expenses, and special services
12. Expense accounts of directors, officers, and employees
13. Rent, light, heat
14. Office building expense
    Repair, taxes, and maintenance of office building
    Depreciation of office building
15. Furniture, fixtures, and equipment, including depreciation
16. Advertising
17. Stationery, printing, and office supplies
18. Telegraph, telephone, postage, and express
19. Insurance and bond premiums
20. Federal insurance premium
21. Audit fees
22. Supervising examinations and assessments
23. Organization dues
24. Other operating expense
25. Total operating expense

III. Net Operating Income Before Interest and Other Charges

IV. Less Interest Charges:

26. On deposits, investments, certificates, etc.
    _________%
27. On advances from Federal Home Loan Bank
28. On borrowed money
29. Total interest

V. Net Operating Income

VI. Add Nonoperating Income:

30. Dividends retained on repurchases and withdrawals
31. Profit on sale of real estate
32. Profit on sale of investments
33. Other nonoperating income
34. Total nonoperating income

VII. Net Income After Interest and Before Charges

VIII. Less Nonoperating Charges:

35. Foreclosure costs and back taxes on real estate acquired
36. Loss on sale of real estate
37. Loss on sale of investments
38. Other nonoperating charges
39. Total nonoperating charges

IX. Net Income for Period

The Federal Home Loan Bank requires the statement of condition in the following form:

Assets

1. First mortgage loans:
    First-mortgage direct-reduction loans
    First-mortgage share-account sinking fund loans,
    First-mortgage straight loans
    Advances for taxes, insurance, etc., on first mortgage loans

2. Second-mortgage loans:
    - Second-mortgage loans
    - Accrued interest receivable on second-mortgage loans
    - Advances for taxes, insurance, etc., on second-mortgage loans
3. Share loans:
    - Loans secured by shares of this association
    - Loans on deposit accounts and certificates of investment
    - Accrued interest receivable
4. Other loans:
    - Loans on all other security
    - Unsecured loans
    - Accrued interest receivable
5. Real Estate sold on contract:
    - Real Estate sold on contract
    - Accrued interest receivable on real estate sold on contract
    - Advances for taxes, insurance, etc., on real estate sold on contract
6. Real estate owned
7. Real estate equitably owned
8. Real estate in judgment and subject to redemption
9. Investments:
    - Stock in Federal Home Loan Bank
    - Federal Home Loan Bank bonds
    - U. S. Government obligations
    - Other investment securities
10. Accrued interest receivable on investments
11. Cash on hand and in banks
12. Office building
    - Office building
    - Less allowance for depreciation
13. Furniture, etc.:
    - Furniture, fixtures, and equipment
    - Less allowance for depreciation
14. Deferred charges
15. Other assets

Total Assets

CAPITAL AND LIABILITIES

20. Repurchasable or free shares:
    - Instalment share dues credited
    - Deduct—Delinquent dues
    - Sub total
    - Add—Dividends
    - Net free instalment shares
    - Optional shares
    - Prepaid shares
    - Add—Dividends
    - Net prepaid shares
    - Full-paid shares
    - Matured shares

Total repurchasable or free shares

21. Mortgage-pledged shares
    Deduct—Delinquent dues
    Subtotal
    Add—Dividends
      Net mortgage-pledged shares
22. Deposits, investment certificates (by classes):
23. Interest accrued
24. Advances from Federal Home Loan Bank
25. Borrowed money:
    From banks and other associations
    From others
26. Mortgages on real estate owned
27. Interest accrued
28. Dividends declared, unpaid and uncredited
29. Taxes accrued and unpaid on real estate owned
30. Accounts payable
31. Loans in process
32. Advance payments:
    Advance payments by borrowers for taxes and insurance
    Unapplied mortgage credits
33. Other liabilities
34. Permanent, reserve, or guaranty stock
35. Deferred credits to future operations:
    For unearned profit on real estate sold
    For income collected in advance
36. Specific reserves:
    For uncollected interest
    For junior liens
37. General reserves:
    Legal reserve
    Federal insurance reserve (if insured)
    For contingencies
    Real estate reserve
38. Bonus on shares
39. Undivided profits
40. Reserve for estimated
      Total Capital and Liabilities

The Federal Home Loan Bank also requires the preparation of a reconciliation of the reserve and undivided profits accounts.

These statements are submitted in the following form:

STATEMENT OF RESERVES

Legal Reserve

1. Balance at beginning of period
2. Additions during period
3. Total additions
4. Totals of items 1 and 2
5. Deductions during period
6. Total deductions
7. Balance at the end of the period

Federal Insurance Reserve

1. Balance at beginning of period
2. Additions during period
3. Totals of items 1 and 2
4. Deductions during period
5. Total deductions
6. Balance at end of period

Reserve for Contingencies

1. Balance at beginning of period
2. Additions during period
3. Total additions
4. Totals of items 1 and 2
5. Deductions during period
6. Total deductions
7. Balance at end of period

Real Estate Reserve

1. Balance at beginning of period
2. Additions during period
3. Totals of items 1 and 2
4. Deductions during period
5. Total deductions
6. Balance at end of period

Other Reserves

1. Balance at beginning of period
2. Additions during period
3. Total additions
4. Total of items 1 and 2
5. Deductions during period
6. Total deductions
7. Balance at end of period

RECONCILEMENT OF UNDIVIDED PROFITS ACCOUNTS

For the year ended ________, 19___

1. Balance of undivided profits at beginning of year
2. Net income for the year

   Less distribution of net profit:
3. Transfers to reserves
   - For bonus on shares
   - Legal reserve
   - Federal insurance reserve
   - For contingencies
   - Real Estate reserve

     Total Transfers to Reserves
4. To dividends
5. Balance to undivided profits (black or red)
6. Balance before adjustments
7. Other additions

8. Sub total
9. Other deductions
10. Balance of undivided profits at the end of the year

Bookkeeping Methods

It is unnecessary for an association to operate a voucher register or purchase book because of the manner in which general expenses are recorded. The books of original entry consists of a cash receipts book, a cash disbursements book, and a general journal.

The small associations have only one book of original entry, the cash book journal. This record is in general use in savings and loan associations. It is a large book which contains a date and a description column in the center and fifteen to twenty-five columns on either side. The columns next to the description and date columns are the cash columns. Cash receipts are recorded on the left side and cash disbursements are recorded on the right side. All other columns on the left side are credit columns and all other columns on the right side are debit columns. Cash receipts are entered in the debit cash column on the left hand side and are distributed to the credit of the various accounts appearing on the same side of the book. Journal entries not affecting the cash account are entered by debiting an account appearing on the right side of the journal and by crediting an account appearing on the left side of the journal.

Associations using the cash book journal frequently do not use a general ledger. The cash book journal totals are posted directly to a worksheet, the first two columns of which contain the last preceding balance, and the next two columns contain the current transactions as taken from the totals appearing in the cash book journal. The only adjustments of accounts are the recording of an inventory of interest arrears and the distribution of the net profit. The balance sheet and profit and loss statement are then extended in the usual manner.

The following ledgers are kept by most associations: (1) shareholders' ledger, (2) payroll records and occasionally subsidiary records for insurance and taxes, (3) real estate ledger, and (4) general ledger (now used quite commonly).

ACCOUNTING FOR SHOE MANUFACTURERS

By

ADOLPH SCHOEN *

BRIEF DESCRIPTION OF BUSINESS

Shoe manufacturing is one of our oldest essential industries. It is highly technical and highly competitive.

Modern demand has resulted in the creation of many types of footwear. These may be classified first as to manufacturing process, consumer class, and grade, and then as to use, style, material, and special features. Among the production methods used are: Compo, Sbicca-Delmac, Welt, Littleway, McKay, Goodyear Turn, and Bench Made. These processes differ principally in the manner of attaching sole to upper. Men, women, boys, girls, children, and infants constitute separate consumer groups. Quality of material and labor employed are determining factors in grading footwear. The materials used are the treated skins of mammals, reptiles, fishes, birds, fabrics, and synthetic products. Shoes are also classified according to special construction features as characteristic of orthopedic footwear.

The average medium-sized shoe factory specializes in manufacturing one general class of footwear, that is, one as to process of manufacture, consumer class, and grade. Within these limits, a variety of styles in many materials will usually be found. Large plants sometimes manufacture several types of footwear.

Many plants make shoes only to customer's specifications based on factory sample submitted. As shoe manufacturing is generally a seasonal industry, stock shoes are sometimes made in order to maintain production at a relatively uniform level.

Output is sold in domestic and foreign markets to individual shoe stores, chain stores, department stores, and wholesalers, the larger plants sometimes having their own chain store and shoe department affiliates. Sales are largely made by traveling representa-

* Certified Public Accountant, New York City.

tives calling periodically at the customer's place of business with samples. Volume shoe buyers generally visit the factory, its sales office, or its exhibit at style shows several times each year to buy or to formulate buying plans. Some use is made of mail-order advertising in trade journals to stimulate sales.

To place his product within a specific retail price range, the manufacturer of one type of shoe generally sells his product at a fairly uniform price. In doing so, he disregards ordinary variations in cost which result from style and material changes. He therefore finds it necessary to limit and average his production costs to secure a reasonable profit.

Theory of Accounts

Accounting theory and methods for shoe factories vary considerably. Devising a suitable accounting system requires careful study and analysis of results expected and of the many special features of the individual plant. Profits in this industry are usually low. Therefore, the manufacturer must be properly informed if he is to retain his competitive position and operate at a profit.

The manufacturer of one type of footwear usually requires for guidance the following information:

1. Production and sales in terms of pairs of shoes
2. Sales classified as to makeups, stock shoes, etc.
3. Losses on returns and allowances with pairs involved
4. Discounts to customers
5. Analysis of materials cost
6. Analysis of productive labor cost
7. Analysis of manufacturing expenses
8. Analysis of administrative expenses
9. Analysis of selling expenses
10. Material and labor costs on individual lots of shoes

The above data should be available on a per pair basis as well as a whole. This information serves as a basis for comparison with original cost estimates prepared when samples are made, and as a guide in fixing future selling prices.

The accounting system should also provide for accurate production control to insure efficient use of facilities, to effect prompt deliveries, to avoid cancellation losses, and to detect losses by theft.

Accounts Required

The following accounts are usually adequate for the average medium-sized factory which specializes in the manufacture of one type of footwear:

	Numerical Designation
Assets	*#1 to #99*
Cash in Bank	# 1
Petty Cash Fund	# 2
Accounts Receivable—Trade	# 3
Notes Receivable—Trade	# 4
Miscellaneous Receivables	# 5
Merchandise Inventories	#20
Raw Materials	#20.1
Work in Process	#20.2
Finished Goods	#20.3
Deposits Receivable	#75
Machinery and Equipment	#80
Furniture and Fixtures	#81
Lasts	#82
Patterns and Dies	#83
Deferred Charges	#90
Liabilities, Reserves, and Capital	*#100 to #199*
Accounts Payable	#101
Notes Payable	#102
Accrued Expenses Payable	#103
Reserve for Depreciation—Machinery and Equipment	#180
Reserve for Depreciation—Furniture and Fixtures	#181
Reserve for Depreciation—Lasts	#182
Reserve for Depreciation—Patterns and Dies	#183
Reserve for Bad Debts	#189
Capital Stock	#190
Surplus	#195
Sales Accounts	*#200 to #249*
Sales	
Shoes made to order	#201.1
Stock shoes	#201.2
Sample shoes	#201.3
Returned shoes	#201.4
Returns	
Shoes made to order	#221.1
Stock shoes	#221.2
Sample shoes	#221.3
Returned shoes	#221.4
Allowances	#231
Discounts	#241

MISCELLANEOUS INCOME ACCOUNTS	*#250 to #259*
Discounts on Purchases	#251
Interest Income	#252
Miscellaneous Income	#259
PRODUCTIVE LABOR	*#300 to #399*
Cutting Department	#301
Fitting Department	#302
Stockfitting Department	#303
Lasting Department	#304
Heeling Department	#305
Finishing Department	#306
Cleaning and Packing Department	#307
MATERIALS	*#400 to #499*
Upper Materials	#401
Lining Materials	#411
Bottom Materials	#421
Outer Soles	#421.1
Inner Soles	#421.2
Counters	#421.3
Shanks	#421.4
Heels	#421.5
Box Toes	#421.6
Miscellaneous Materials	#431
Silks and Threads (Fitting Department)	#431.1
Binding (Fitting Department)	#431.2
Adhesives	
Fitting Department	#431.31
Lasting Department	#431.32
Heeling Department	#431.33
Cleaning and Packing Department	#431.34
Tacks and Nails	#431.4
Cleaning and Repairing Materials	#431.5
Bottom Finishing Materials	#431.6
Laces	#431.7
Ornaments	#431.8
Embossing	#431.9
Packing and Shipping Materials	#451
Cartons (Individual)	#451.1
Cases (Corrugated)	#451.2
Tissue Paper	#451.3
Adhesives, Twine, etc.	#451.4
MANUFACTURING EXPENSES	*#500 to #599*
Salaries of Superintendent and Foremen	#501
Factory Rent	#502
Machine Rentals and Royalties	#503
Power	#504
Light	#505
Repairs and Parts—Machinery and Equipment	#506

Factory Supplies	#507
Insurance	#508
Provision for Depreciation—Machinery and Equipment	#509
Provision for Depreciation—Lasts	#510
Provision for Depreciation—Patterns and Dies	#511
Payroll Taxes on Factory Payroll	#512
Cartage Inward on Purchases	#513
Sundry Manufacturing Expenses	#550
ADMINISTRATIVE EXPENSES	*#600 to #699*
SELLING EXPENSES	*#700 to #799*
PROVISION FOR DOUBTFUL ACCOUNTS	*#801*
INTEREST EXPENSE	*#810*
PROFIT AND LOSS ACCOUNT	*#901*

FINANCIAL STATEMENTS

Of the statements usually prepared for the shoe manufacturer, only the statement of Income and Expenses is illustrated, as it differs somewhat from those prepared for other types of industry. The other statements may be easily prepared from the chart of accounts.

EXHIBIT B
STATEMENT OF INCOME AND EXPENSES

	Pairs			Average Per Pair of Original Sales	
ORIGINAL SALES OF SHOES					
Made to Order		$		$.	
Stock		$ . .		$	
TOTAL ORIGINAL SALES			$.		$ .. .
Less:					
Return Losses		$ . ..		$........	
Allowances		$		$	
Discounts		$..... .		$. . .	
TOTAL DEDUCTIONS FROM SALES..			$		$.. .....
NET SALES			$.		$........
MANUFACTURING COST OF SALES					
Materials (Sch. # 1)		$.......		$........	
Productive Labor (Sch. #2)..		$........		$........	
Manufacturing Expenses (Sch. #3)		$........		$........	
TOTAL MANUFACTURING COST OF SALES			$		$........
MANUFACTURING PROFIT			$....		$........

Administrative Expenses (Sch. #4)	\$........		\$........	
Selling Expenses (Sch. #5) ...	\$..		\$........	
Total Selling and Administrative Expenses		\$........		\$........
Operating Income		\$........		\$........
Other Income				
Purchase Discounts	\$........		\$........	
Interest Income	\$.... ..		\$........	
Total Other Income		\$...... .		\$........
Net Profit		\$.. . .		\$........

Several items in the foregoing statement of operations require comment.

Return Losses—Sales of returned merchandise are recorded separately. Loss on returns from customers is the difference between total charges to the Sales Returns account and total credits to the Sales of Returns account with proper adjustment for inventories of returned merchandise at the beginning and close of the accounting period.

Depreciation—It is fairly general practice to use a rate of 10 per cent per annum in providing for depreciation of shoe machinery and equipment. A rate of 33⅓ per cent is commonly employed for lasts. Patterns and dies are frequently written off in year of purchase.

Inventories—Unless returned or cancelled, shoes made to order, both finished and in process of manufacture, are usually valued at cost. Cost includes overhead expenses as well as labor and material. Overhead is apportioned in accordance with the stage of manufacture reached on the date of inventory. So that accurate costs of goods sold may be obtained, inventories are analyzed and summarized as to component labor, material, and overhead costs.

Bookkeeping Methods

Carefully designed office forms are essential to the efficient operation of the shoe factory accounting system. Some of the more important of these are described in the following paragraphs.

Pattern Cost and Detail Record is a form which provides for a sketch of each style of shoe and a summary of its variable material

and labor costs. Provision is also made for description of specifications. It is valuable in fixing selling prices, checking piecework payrolls, and purchasing requirements. A specimen of this form, designed by the author, is reproduced below.

Production Ticket is the form which translates the customer's order into detailed specifications and instructions for the factory. Separate tickets are used for each part of the order. Number of pairs on a ticket is usually limited for manufacturing convenience. A manifold ticket is generally used so that instructions may be issued simultaneously to several departments.

Tracer—The tracer is a vital record. A brief summary of the descriptive detail of each Production Ticket is entered upon this form. Also recorded are shipments of customers' orders, daily departmental production reports, and the ordering and receipt of materials. A visual record of shoes in process is therefore always available. The proper use of this form facilitates production planning and control, prevents late deliveries and resultant losses, and quickly reveals pairage shortages from any cause. An excellent check on quantities and values in inventories of work in process and finished goods, is provided. A tracer form created by the writer is illustrated.

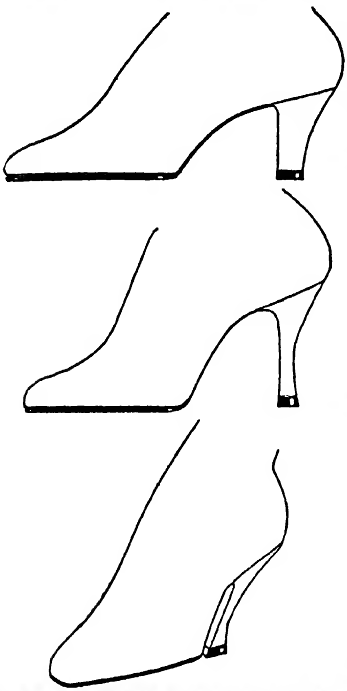
Piecework Payroll Checking Sheet is a form which facilitates checking each employee's daily piecework slip listing work done. The pairage of each lot of shoes and appropriate piecework rates are entered upon this sheet prior to the checking operation. Slips are checked in the order of the production process. A permanent record of lot piecework labor costs is established. This form also serves as a convenient reference for fixing responsibility for any unit of piecework, and as a check on inventory quantities and values. One of several forms of this type designed by the author is shown below.

Cutting Slip is a record of quantity and cost of upper material used for each lot of shoes. These data are very important as upper material is one of the largest of the variable cost factors in shoe manufacturing. Information thus obtained is the basis of entries on the pattern cost and detail record. Analysis of this information is valuable in determining relative abilities of cutting-room employees and relative merits of various upper materials.

PATTERN PIECE WORK RATE, COST, & DETAIL RECORD

Pattern______________
Type of Shoe______________
Model No.______________
Date______________

	BASE	Pierce Holes	Marking	Notches	Cutouts ( )	Extension		Tongue	Strap		Socks	Drill	Fleece	Backing	Allow		
1. Outside Cutting																	$.
2. Lining Cutting																	.
3. Cutouts																	.
4. Miscellaneous																	.



TOTAL CUTTING COST	$

FITTING:	
101. Skiving	$.
102. Perforating	.
103. Flat Fold.	.
104. Piping	.
105. Fold Bind.	.
106.	.
107.	.
108. Lining Making	.
109. Closing	.
110. Stitching	.
111.	.
112.	.
113. Vamping	.
114. Stitch Bind.	.
115. Edge Stitch	.
150. Contract Fitting	.
.	.
.	.
.	.
. TABLE WORK	.
TOTAL FITTING COST	$.

OTHER VARIABLE LABOR COSTS:	
300. LASTING	$.
.	.
.	.
.	.
.	.
TOTAL VARIABLE LABOR COSTS	$.

MATERIAL COSTS	SPECIFICATIONS	QUANTITY	PRICE	AMOUNT
Accessory			$.	$.
Accessory			.	.
Ornament			.	.
Patent Leather		Ft.	.	.
Black Kid		Ft.	.	.
Brown Kid		Ft.	.	.
Fabric		Yd.	.	.
Lining—Leather		Ft.	.	.
			.	.

COST SUMMARY	VARIABLE COSTS (Material & Labor)	FIXED COSTS (Material & Labor)	COMMISSION & DISCOUNT	TOTAL
(In Patent Leather)	$	$	$	$

SCHOENFORM 1078

DATE ORDERED & ORDER NO.	CUSTOMER NUMBER	PATTERN	MATERIAL	LAST	CUSTOMER'S STYLE NUMBER	PRICE	FACTORY NUMBER	PAIRS	TOTAL PAIRS IN SERIES	HEELS		SOCKS		REQUIREMENTS			TRACER							[illegible]	SHIPPED		COMPLETE CHECK
										OUT	IN	OUT	IN	MATERIAL	CARTON	ORNAMENT	CUT	FITTED	LASTED	HEELED	FINISHED	PULLED	PACKED		DATE	PAIRS	✓
							01																				
							02																				
							03																				
							04																				
							05																				
							06																				
							07																				
							08																				
							09																				
							10																				
							11																				
							45																				
							46																				
							47																				
							48																				
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							50																				
TOTALS & COMPLETE CHECKS FOR THIS PAGE ONLY																											
TOTALS & COMPLETE CHECKS FOR PRECEDING PAGES																											

SCHOENFORM 1003

FACTORY NUMBER	PAIRS	TOTAL PAIRS IN SERIES	OUTSIDE CUTTING 1	LINING CUTTING 2	CUTOUTS 3	MISC. 4	SKIVING 101	PERF. 102	FLAT FOLD 103	PIPING 104	FOLD BIND 105	106	107	LINING MAKING 108	CLOSING 109	STITCHING 110	111	112	TAMPING 113	STITCH BIND 114	EDGE STITCH 115	CONTRACT FITTING 150	STOCK FITTING 200	SEWING 250	LASTING 300	HEELING 400	EDGE SET 500		FINISHING 550	CLEANING 600	COMPLETE CHECK ✓
01																															
02																															
03																															
04																															
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SCHOENFORM 1003

The following essential books of original entry require little or no comment as no unusual features are involved:

Sales Analysis Record (provides for a breakdown of sales according to nature, pairage, salesman, and commission credited)

Sales Return Analysis Record

Cash Receipt Record

Cash Disbursement Book

Purchase Book

Purchase Return Book

Petty Cash Book

Journal

From the books and records of original entry, postings are made to the following records:

General Ledger

Accounts Receivable Ledger

Accounts Payable Ledger

Fixed Assets Record (a detailed record of machinery, equipment, lasts, furniture, and other fixed assets facilitating calculation of depreciation, insurance data, profit or loss on disposition, etc.)

Payroll Records (a record by department of earnings of each employee furnishing information required under social security and wage and hour laws and facilitating preparation of various reports required.)

ACCOUNTING FOR STOCK BROKERS

By
L. B. McLaughlin *

Brief Description of Business

Several kinds of organizations are commonly referred to as stock brokers. Such organizations are divided into two broad classifications, namely, security dealers and commission houses. Security dealers, often referred to as investment dealers, include houses of original issue and do, principally, a merchandising business in securities, dealing more generally in unlisted securities as principals. Commission houses usually do an agency business in listed securities, are members of various exchanges, and carry customers' margin accounts. The latter kind of organization is the subject of this discussion and will hereinafter be called a stock broker.

In the technical sense a broker is one who transacts business as an agent for others and receives a fee for his services. A stock broker therefore is one who buys and sells securities upon the instructions and for the account of his customers, and receives a commission for the use of his facilities and for the services rendered. In practice, however, most stock brokers serve both as agent and as principal. In acting as agent they are bound by the laws governing agency transactions, rules of the exchanges of which they are members, and various specific statutes, both Federal and state, which have been enacted with reference to the security business. In such transactions they are obliged to follow the instructions of their principal (i.e., customer) or decline to handle the business. When serving as principal they buy and sell for themselves, and act as a merchandiser of securities, their profit or loss on the trade being measured by the difference between the cost and selling price of the security.

Stock brokerage houses, to meet the requirements for member-

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ship in exchanges, are usually organized as partnerships or sole proprietorships. Recently there has been considerable discussion relative to the admission of corporations, but little, if any, definite action on this proposal has been taken.

Large houses have one or more branch offices connected by a private wire system. Such organizations generally clear their own business and have memberships in the clearing organizations of the various exchanges of which they are members. Small organizations, particularly those which have no office in the cities where the exchanges are located, employ other members as correspondents to clear their business for them.

In so far as transactions with customers are concerned there are two general types, namely, margin transactions and cash transactions. A margin transaction is one in which the customer deposits with the broker a part of the cost of the securities bought and allows the broker to hold the securities purchased as collateral for the unpaid balance (see Short Accounts hereinafter). The funds the broker invests in the transaction are obtained either from his capital, from free credit balances of other customers or from a bank loan against which the securities purchased are deposited as collateral. (In certain brokerage houses customers' free credit balances are segregated and not commingled with the broker's other funds.) The amount a broker loans a customer in a margin account is subject to the provisions of Federal Reserve Board Regulation T, the broker's own margin requirements and, in certain instances, the requirements of various exchanges. A cash transaction is one in which the customer pays for the securities in full, either before or shortly after they have been purchased. The period of time within which the broker is required to obtain payment is also controlled by Federal Reserve Board Regulation T.

In addition to the supervision of margins by the Federal Reserve Board, the stock brokerage business is subject to supervision and regulation by the Securities and Exchange Commission, state security commissions, and appropriate committees of various stock exchanges. These bodies have promulgated a large number of rules and regulations, many of which affect the conduct of a brokerage business from an accounting standpoint. Those regulations applicable to a particular stock broker should be carefully studied in considering his accounting setup.

Generally speaking the total income of a stock broker is derived from commissions on agency trades, profits on principal transactions, and interest charged customers on funds loaned to them in margin accounts. Expenses consist of clerks' salaries, wire charges, rent, insurance, brokerage, interest paid on loans, etc.

Theory of Accounts

Inasmuch as a stock broker deals exclusively in liquid assets, that is, cash and securities, both of which are subject to misappropriation, and the latter of which is subject to fluctuations in market value, the accounting system should contain an adequate system of internal check and should be designed to produce current information. Furthermore, inasmuch as the volume of business which the broker will be called upon to handle over a given period cannot be predicted with accuracy, the system should be flexible and not contain bottlenecks which delay the transmission of vital information between departments.

Fundamentally the accounting system of a stock broker follows standard principles of accounting but is specialized for the following reasons:

1. Entries are made both in terms of dollars and in terms of shares or par values.

2. Entries to record purchases and sales are not entered on the broker's records (except in the P & S and margin departments) on the day the trade is made but are posted on the day of settlement. When the broker makes a trade he enters into an executory contract for settlement on a future predetermined date. In the case of transactions made the usual way on an exchange, the settlement date is generally the second full business day (Saturdays, Sundays, and holidays excluded) after the actual transaction took place. On certain exchanges the settlement date is the next full business day and on over-the-counter transactions there is no uniformity as to the settlement date, such date being governed by custom in various localities. This procedure has been evolved to permit the necessary calculations and arrangements to be made for physical transfer of the property bought or sold. As a consequence, on any given business day (except Saturday, which is not a clearance day), the broker's accounting department does two general kinds of work.

The first involves the work done in handling purchases and sales made on that day which are to be posted on the clearance date, and the second consists of making the actual postings and settlements for trades made on a preceding date.

3. Those brokers who clear their own transactions keep no ledger accounts for the street side of the trade. Settlement with the street is effected in one of two ways. If the trade is what is known as an exclearing transaction the settlement is made directly with the other broker involved by delivering the securities to him and receiving his check, or vice versa. If the transaction is what is known as a clearing trade the settlement is then effected through the clearing house. The details of operation of various clearing houses vary.

The fundamental principals of operation call for further discussion. Each broker who is a member of the clearing house makes a calculation on each day's trade of the net amount of shares of each security which he is to receive or deliver, and applies to these balances the settlement prices furnished by the clearing house (the difference between the settlement prices and the actual trade prices is paid to or collected from the clearing house in a separate check or draft). The information concerning these balances to receive or deliver and the amounts of money thereagainst are then transmitted to the clearing house which subsequently furnishes each member with the names of the other brokers to whom they are to deliver or from whom they are to receive the securities. On the clearance date, if the clearing organization has a central delivery department all members deliver their securities to this department and pick up those which they are to receive, the clearing house charging and crediting them with the amounts of money involved. At the close of the day those securities which are not delivered or received then become "fails" to receive and deliver. (Fails are subsequently settled either directly between the respective brokers or through the central delivery department.) The final net balance due to or from the clearing house, represented by the items actually received and delivered, is paid to or collected from the clearing house at the close of the day.

All brokers who are members of clearing organizations which operate in this manner are obliged to keep a permanent cash de-

posit with the clearing house, the amount of which is based upon the average volume of business done by the particular broker, as a guarantee that obligations to the clearing house will be met. The use of a clearing house greatly reduces the number of individual receipts and deliveries of securities and receipts and disbursements of cash in effecting settlement of a day's business. Furthermore there is no need for the broker to maintain individual accounts for the street side of the transactions as the entries placed on the books for the trade of any particular day represent a debit or credit to customers' accounts as the case may be, the offsetting item affecting the broker's cash balance and balances for failures to receive and deliver.

4. The final important peculiarity of brokerage accounting arises from short sales. In order to make a sale preceding a purchase it is necessary that the seller obtain the property sold for delivery to the buyer. Therefore when a customer makes a short sale the broker, in order to deliver to the buyer, borrows the stock sold from someone who has a supply thereof and deposits with the lender a sum of money equal to the value of the stock borrowed to guarantee its return. These deposits are adjusted as the market fluctuates so that as long as the contract remains open the lender is protected. As a result of short sales two accounts are created on brokers' books—stocks borrowed and stocks loaned. In the case of stocks borrowed it usually means that the broker on whose books the account is carried has a customer who has made a short sale. In the case of stocks loaned it usually means that the broker on whose books the account is carried has loaned stock to another broker who has a customer with a short position.

To the account of the customer making a short sale the broker credits the amount of the sales proceeds and also requires the customer to deposit an additional sum of money as margin. Although the customer's account shows a credit money balance the payment thereof is subject to covering the short position which may be done in one of the two following ways: by making an offsetting purchase or by the customer's obtaining the stock from some other source and delivering it to the broker.

Accounts Required

The more important accounts required are as follows:

Balance sheet accounts:
Cash on hand
Cash in banks
Stock clearing funds
Customers' control
Exchange memberships
Office furniture and equipment
Stock transfer and documentary stamps
Fails to deliver
Fails to receive
Stocks borrowed
Stocks loaned
Bank loans
Firm investment and trading account
Capital
Undivided profits
Unclaimed dividends and coupons
Commissions payable

Income and expense accounts:
Commissions earned
Profits on principal transactions
Interest earned
Employees' salaries
Rent and office maintenance
Telephone and telegraph
Insurance
Stationery and supplies
Exchange dues
Clearing charges
Brokerage paid
Taxes
Errors

Balance Sheet

A form of balance sheet that is being used currently is illustrated below:

Stock Broker & Company
Statement of Assets, Liabilities, and Net Worth
Blank Date

Assets

Cash on hand and in banks, clearing funds and similar items	
Receivable from other brokers or dealers on open accounts, stock borrowed and failed to deliver items	
Receivable from customers on fully secured accounts and "bona fide cash accounts"	
Market value of securities held for firm and partners' accounts and customers' accounts which are in deficit:	
Stocks	
Bonds	
Miscellaneous current assets—revenue stamps and similar items	
Total current assets	$
Memberships in exchanges, at appraised market value	
Office furniture and fixtures, less allowances for depreciation	
Unsecured receivables and deficits deemed ultimately collectible	

LIABILITIES

Money borrowed	
Payable to other brokers or dealers on stock loaned and failed to receive items	
Payable to customers:	
Free credits	
Credit balances in fully secured short accounts and "bona fide cash accounts"	
Market value of securities short for firm accounts and customers' accounts which are in deficit	
Miscellaneous current liabilities—current accounts payable, commissions payable, accrued taxes, unclaimed dividends and similar items	
Total current liabilities	$

NET WORTH

Balance blank date	
	$

In the above statement no provision is made for long-term liabilities because in most cases all liabilities of a stock broker are current.

Although the above statement is the form usually prepared for submission to customers, it is generally derived from summarization of what is popularly known as a questionnaire. A questionnaire is a specialized form of financial statement which has evolved over a long period of time from the leading stock exchanges. It is particularly adapted to the analysis of a broker's financial position. In brief it summarizes the broker's affairs into the eight following classifications: (1) bank balances and other deposits, (2) money borrowed and open street items, (3) market value of negotiable securities in box and transfer, (4) customers' accounts, (5) partners' accounts, (6) profit and loss balance, (7) other accounts, and (8) contingent assets and liabilities.
The information on this statement is presented in four columns, the first two containing debit and credit money balances and the second two, long and short security values. Complete details as to the form and methods of preparing such a statement may be obtained from any of the leading stock exchanges.

BOOKKEEPING METHODS

A stock broker's accounting organization is usually divided into the following departments:

The Order Department keeps a record of customers' open orders,

transmits them to the exchange or street for execution, and upon execution submits appropriate information to the purchase and sales department. The order department also confirms unexecuted orders with the customers at periodic intervals.

The Purchase and Sales Department usually performs the following four distinct operations: (1) preparation of an invoice for the customer, (2) comparison of the transaction with the other broker involved, (3) distribution of information concerning each trade to the other divisions of the accounting department, and (4) accumulation of information with which to effect clearance of the trade on the settlement day.

The Margin Department maintains memorandum records showing customers' security positions, money balances, and equities as compared with margin requirements.

The Bookkeeping Department keeps customers' accounts in ledger form and submits statements to customers at periodic intervals.

The Cashier's Department receives and disburses all funds, handles clearing house settlements and bank loans, accounts for stocks borrowed and loaned, fails to receive and deliver, and other street items.

The Stock Cage Department holds, receives, and delivers all securities under the control of the broker.

The General Ledger Department maintains the usual asset, liability, and income and expense accounts.

The Stock Record Department maintains what might be called the general ledger of securities, while the preceding department maintains a general ledger in terms of money. A separate card or ledger sheet is maintained for each kind of security handled by the broker on which entries are made in terms of shares or par values. Those positions designated as long indicate ownership and those designated as short indicate either the location of the actual securities, or, in the case of short sales, an obligation to furnish the securities. The long and short positions on each security should, of course, balance.

In addition to the above there are various subsidiary departments, such as the dividend and the mail departments, which have not been included since they are not pertinent to the present discussion.

The entries which are recorded on a stock broker's books may be divided into the following major classes:

1. Purchases and sales of securities
   a. As agent
   b. As principal
2. Receipts and disbursements of cash
   a. For account of customers
   b. For settlement of transactions made with other brokers
   c. For miscellaneous purposes, such as payments of expenses, loans, etc.
3. Movements of securities
   a. Received from and delivered to customers
   b. Received from and delivered to other brokers or clearing houses
   c. Placed in or withdrawn from banks on loans
   d. Received from and delivered to transfer agents
   e. Placed in and withdrawn from segregation
   f. In case of organizations with branches, for movements of securities between offices
4. Accumulation of income and expense results and data for determination of financial position

Entries with reference to purchases and sales of securities originate in the P & S department. The P & S department prepares an invoice showing the details of the transaction with the broker's commission added on purchases and with the commission and tax deducted on sales. These invoices are usually prepared in several copies, the number depending upon the departments into which the broker's accounting organization is divided. Generally copies are made for the margin department, bookkeeping department, and stock record department. The copy for the margin department is received shortly after it is prepared and is immediately entered on the margin department records. The remaining copies are retained in the P & S department until the close of the day at which time they are sorted and distributed.

In the P & S department summaries called P & S journals, or blotters, are written up, subdivided into appropriate classifications, such as clearing, exclearing, odd lot, etc., preparatory to clearance of the trade on the settlement date and posting to the controlling accounts. In many brokers offices, through the use of mechanical equipment such summaries are prepared at the same time that the customer's invoice is written up.

In accounting for principal transactions, two ledger accounts are affected, the first being the broker's own trading account and the second the account of the person to whom the securities were

sold or from whom they were bought. In such trades the broker, if he is the seller, bears the cost of stamp taxes.

In the bookkeeping department postings for purchases and sales are made on the clearance date, whereby on purchases the customer's account is debited with the money cost and is credited with the number of shares or par value of securities bought. (In brokerage terminology security credits to a customer's account are known as longs and security debits are known as shorts.) On sales the customer is credited with the net proceeds and debited with the quantity of securities sold.

In the stock record department the customer is credited (made long) for securities purchased and is debited (made short) for securities sold. Further details concerning the methods followed by this department will be found hereinafter.

In accounting for receipts and disbursements of cash, the entries originate in the cashier's department. This department prepares notices for the other departments affected in the form of cash debit and credit memoranda, which are distributed to the various departments at the close of the day. The entries affecting the margin department are usually transmitted shortly after they occur. The cashier's department also prepares daily summaries of cash transactions for posting to the controlling accounts.

With respect to receipts and deliveries and other movements of securities (as contrasted with purchases and sales), such entries, if they are for customers' accounts, affect the margin department, bookkeeping department, and stock record department. In the margin department such entries are posted immediately, whereas in the stock record and bookkeeping departments they are usually posted on the following day but dated as of the date of the actual movement. In the bookkeeping department deliveries of securities to customers are charged against their accounts, i.e., placed on the short side, and receipts from them are credited to their accounts, i.e., placed on the long side. The same procedure is followed in the stock record department, except that in this department the balance of securities, long and short, for any customer is usually calculated and carried forward daily. In the bookkeeping department calculations as to the net position of a customer in any security are not essential until the end of the month when statements are being prepared.

In addition to movements of securities affecting customers' accounts there are others which are of an internal nature, such as delivery and receipt of securities to and from transfer, deposit and withdrawal of securities in bank loans and movements of securities between the active and segregated boxes, which affect only the location of the securities and not their ownership.

In the case of transfers, as securities are ordered to transfer they are removed from the box, safekeeping, or wherever they may have been, and sent to the transfer agent's office at which time an entry is made removing them from their previous location and setting up a new location with the caption "transfer." At the time they are returned from transfer an entry is made taking them out of the transfer position and placing them back in the box or wherever their ultimate location may be. (In certain brokers' offices when securities are sent to transfer to be registered in customers' names they are charged off the customers' accounts. The entry made is practically the equivalent of showing the securities delivered to the customer for the reason that when instructions are given the transfer agent to transfer securities into a customer's name, such instructions cannot be cancelled by the broker. Therefore, in so far as the broker is concerned, title to the securities has passed out of his control and should no longer be considered as collateral to the customer's account. Other brokers operate on the theory that all securities held by the customer should be shown on the customer's account until they are actually delivered.)

Securities deposited in and withdrawn from bank loans likewise cause entries affecting only the location of the securities. The information with which to effect such postings is furnished by the stock cage or cashier's department as the securities are deposited in loans or withdrawn therefrom.

Movements of securities between the active and segregated boxes are occasioned by the requirements of stock exchanges and the Securities and Exchange Commission, and brokers are not allowed to hypothecate more of a customer's securities than is found reasonable after taking into account the customer's indebtedness. Securities which are not required to finance the customer's indebtedness and securities which are paid for in full are required to be held separately from those upon which the broker has a lien. Securities when fully paid for are ordinarily known as "free" secu-

rities. Those contained in a margin account that has a larger amount of value than is necessary to finance the account are ordinarily known as "excess collateral" or "excess margin." Usually daily estimations are made by the margin department of the value of customers' collateral in comparison with their money balances, and instructions are given to the stock cage to place various securities in segregation or to remove them from segregation as the case may be. To record such transactions, entries are made showing the transfer of securities from the active box, or whatever their former location was, to the segregated box, and vice versa. (In certain brokers' offices all segregated securities are earmarked with the customers' names. Other brokers follow the procedure outlined by the New York Stock Exchange, the bulk segregation plan, full details concerning which may be found in the *New York Stock Exchange Directory and Guide.*)

Two basic theories concerning methods of accounting for securities, both purchases and sales and movements, are used in brokers' stock record departments. The most widely used plan involves maintenance of daily records in the stock cage on which are entered all movements of securities for that day. Usually a separate card or ticket is used for each kind of security on which is first entered the balance of that particular kind of security on hand the preceding day. In the second operation the purchases and sales that are to be cleared that day are posted. Subsequently, as the day progresses, all actual movements of that security are recorded. At the close of the day the balance of the securities then on hand is inserted on the card and the two sides balanced. These cards are then turned over to the stock record department which adjusts the previous day's balances by the items appearing on the cards. Under this system all transactions in securities are balanced and accounted for prior to the close of business each day. The chief disadvantage of the plan is that the stock record does not show details of the manner in which the positions are changed. If for any reason such details are required, reference is made to the daily cards prepared in the stock cage.

The second method is to operate the stock record as a ledger and to record thereon the details of the purchases and sales, receipts and deliveries, and other movements so that the record is complete in itself. Under this plan, however, postings are not made

by the stock record department until the following day and as a consequence balancing of the previous day's transactions is not done until the succeeding day. The principal advantages of this system are: first, the production of a record which is complete in itself and is of particular value in locating errors and reconciling interoffice positions, and second, the elimination of duplicate postings for purchases and sales.

At the end of the month or after another periodic interval, the following internal checks, among others, are usually made in a well organized stock broker's office:

1. Trial balances of customers' money balances are taken off and compared with controlling accounts.
2. Customers' security positions are checked with the stock record depart ment.
3. Customers' statements are compared, both as to money balances and security balances, with the records of the margin department.
4. Securities on hand are counted and checked with the stock record depart ment.
5. Bank loans and collateral thereto, fails to receive and deliver, stocks borrowed and loaned are confirmed in writing, and securities checked with the stock record department.
6. Bank balances are reconciled.

ACCOUNTING FOR SULPHUR MINING

By

JOHN Q. ADAMSON*

INTRODUCTION

By sulphur mining, reference is to the process of extracting the nonmetallic crude mineral from subterranean Gulf-Coast salt-dome deposits by first melting the sulphur by means of super-heated water injected into the sulphur-bearing limestone formations, then forcing the molten sulphur through a vertical pipe line to the surface of the earth with the aid of compressed air. Since sulphur is about twice the specific gravity of water, the molten flow collects around the bottom of the well, replacing the water and rising in the pipe to hydrostatic level. This process was first applied to a large deposit of sulphur at Sulphur, Louisiana, just before the turn of the century, by the scientist, Herman Frasch, after several other costly mining attempts had failed.

There is no relation in this type of mining to the generally familiar pick-and-shovel method commonly associated with "hard-rock mining." The sulphur deposit is discovered by drilling prospect wells, similar to oil wells. In fact, sulphur is occasionally discovered in this manner, i.e., while some prospector is drilling for oil. It is apparent that certain requisite conditions must prevail, however, before sulphur can be found.

The history of such commercial appearances of sulphur so far indicates that the yellow mineral appears only in salt domes, and these peculiar underground formations seem to confine their occurrences in proximity to the Gulf of Mexico. From the record, it is probably safe to state that wherever there is sulphur there is oil to some extent, because oil is frequently found in the vicinity of salt domes. But by no means is the reverse true, i.e., the presence of oil lends no assurance of the presence of sulphur.

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Sulphur, as well as oil, producers, therefore, are interested in discovering salt domes, since there is the possibility of the appearance of both sulphur and oil. The seismograph is used for the purpose of locating salt domes; whereas the torsion balance is applied to describing the outline, shape, and size of the dome once it has been found. First, then, the would-be sulphur producer finds a salt dome; next, he prospects to determine if sulphur exists in commercial quantities in that area.

Brief Description of Business

One of the most useful substances known to man, the applications of sulphur are legion. It is combined with saltpeter and charcoal to form gunpowder; the manufacture of rubber goods is impossible without it. Sulphur is a mild laxative when internally administered; in ointment form it is used to cure and relieve eczema, itch, ringworm, and other skin infections. To some extent, sulphur is used in match manufacture. In agriculture, sulphur is employed widely in insecticides and to combat plant diseases.

In various forms or combinations, sulphur is an essential in modern industry. For example, sulphur dioxide is a bleach and disinfectant. Calcium bisulphite, acting upon wood cellulose, produces paper pulp. Sodium thiosulphate is used in fixing photographs The majority of sulphur is converted into sulphuric acid which is indispensable in the production of explosives, artificial fertilizers, alum, nitroglycerine, glucose, phosphorus, dyestuffs, and in the bleaching, electroplating, oil-refining, and mining industries. The list of sulphur uses could, figuratively speaking, be extended indefinitely.

Consequently the hunt for sulphur has been a long and vigorous one. Sulphur, known from the earliest ages, is found abundantly in a pure state in volcanic regions. Nature for the most part, however, has dealt unkindly with any attempts at recovery from these deposits on a commercially profitable scale. The famous Sicilian deposits are the notable exception.

Generally speaking, the whole world now looks to the Gulf Coast producers for its primary source of this indispensable mineral. Sulphuric acid is manufactured from pyrites; it is also produced from sulphur-bearing gases released by certain metal-smelting proc-

esses. In relation to total market requirements, however, these sources are still relatively minor.

So-called crude sulphur is merchandised on the basis of a long ton of 2,240 pounds in parcels ranging in size from a carload to a shipload, directly to ultimate consumers or to various chemical processors. Practically all shipments are in bulk form, but occasionally an order may be bagged for a certain customer who is not equipped to handle the product in any other manner.

Since the Frasch process is self-refining—i.e., the natural sulphur is melted from out of the rock serving as its host—the sulphur produced is more than 99 per cent pure. Nevertheless, certain processors refine the product still further to a chemically pure (CP) state.

Sulphur mining, after a commercially satisfactory deposit is found, requires a large power plant in which to produce steam, water at 350°F. maintained under pressure, compressed air, and electric power. Auxiliary services and maintenance shops are essential, as well as treating plants for the needed inexhaustible supply of fresh water. A network of pipe lines leads from the plant to various locations around the mining area for the transmission of steam, hot water, and compressed air. More pipe lines to convey the molten sulphur lead from the various wells to the relay stations and thence to the sulphur storage bins. Other auxiliary equipment includes drilling rigs, derricks, roads, bridges, ramps, an electric power transmission system, a telephone system, trucks, tractors, dredges, boats, barges, wharves, docks, power shovels, cranes, railroad sidings, canals, belt conveyor systems, and so on.

Sulphur wells are equipped with concentric piping, of which the relative sizes vary according to the engineering exigencies of the company, the area, and other factors. A well will always have four sets of pipe, however, and the sizes of a typical installation might run as follows:

		Diameter of Pipe
Outside casing	(maintains the outside diameter of the hole, set while drilling is in progress)	10″
Hot water line	(conveys the hot water down into the sulphur bearing formations to administer the heat for melting the sulphur)	8″

Sulphur line	(conveys the molten sulphur, which collects around the bottom of the well and rises to hydrostatic level, on up to the well-head where the surface line connects)	4″
Compressed air line	(conveys the compressed air down into the sulphur line to lift the column of sulphur and force it over to the relay station)	1¼″

The relay stations are intermediate points for collecting the molten sulphur and for controlling and operating the wells. At stated intervals, the molten sulphur is pumped from the relays to the storage bins to cool and solidify. There it waits as inventory until the block is blasted down for loading into truck, freight car, barge, or ship, to start the product on its way to the customer.

Theory of Accounts

The accounts are selected and classified to show the amount of revenue from sulphur sales and, contrariwise, the cost of that same sulphur which was sold. In order to obtain the cost of the sulphur sold, it is necessary to maintain complete inventory records. These, in turn, are dependent upon proper and adequate cost records. They are also dependent upon complete and accurate production records as well as upon accurate and complete shipping and delivery records. These same shipping and delivery records are essential to assure an accurate accounting for sulphur sales, for behind the billing lie these records.

In certain cases, shipments are made on a consignment basis, and such customers make a report at the end of each month as to the quantity of sulphur they have on hand. The billing department thereupon computes the quantity of sulphur consumed as follows:

1. Tons on hand at the previous month end
2. Plus tons delivered
3. Less tons on hand at the current month end
4. Leaves the quantity of tons consumed

An accounting for the sulphur sales must be completed by the receipt of cash for all sales. Since the majority of sales are likely made on a credit basis, it is necessary to recognize an intermediate accounting by means of customers accounts which are charged with the sales and credited when payments therefor are finally received. Cases in which collection is by sight draft require special handling,

inasmuch as collection is received indirectly from the customer through an intermediary, usually the company's bank.

The sulphur production industry demands a large, fixed investment in plant facilities; consequently, the plant ledger will figure importantly in the accounting system. Subsidiary accounts are pro-

Condensed Flow Chart

Graphic Illustration of the Theory of Accounts for a Sulphuric Producer

	SULPHUR IN PLACE	PROSPECTING, LEASE, & DEVELOPMENT COSTS
WATER SUPPLY & STORAGE	FUEL SUPPLY & STORAGE	
WATER TREATMENT		
POWER PLANT electric power hot water air, steam	SULPHUR WELLS DRILLED & EQUIPPED	
	WELLS STEAMED	
RELAY STATIONS	SULPHUR PRODUCED	PRODUCTION COSTS
	STORAGE BINS	SULPHUR INVENTORY
	SULPHUR LOADED & SHIPPED	LOADING & SHIPPING COSTS
		ADMIN., GENERAL & SELLING COSTS
	SULPHUR SOLD	COST OF SALES
		SULPHUR BILLED
		CASH COLLECTED
		PAYMENT OF ALL COSTS & EXPENSES
		INCOME & E.P. TAXES
		CASH LEFT OVER FOR USE OF BUSINESS & FOR STOCKHOLDERS

vided and added to enumerate and classify adequately the various and many components which comprise the total plant and equipment aggregate. In addition to the numerous subsidiary accounts, it is usually advisable to maintain a further breakdown of these for informative and control purposes by means of work orders.

The land, leasehold, and development costs are peculiar to this type of industry, somewhat similar in this respect to the oil industry. These costs are usually capitalized and written off upon actual abandonment or recaptured through the medium of depletion should the venture prove productive.

In addition to the "in-plant" production costs, there are certain peculiar extraneous costs of production, chief of which are royalties and production (or severance) taxes.

The ever-present property (or ad valorem) taxes must be reckoned with. These, too, are a cost of production, except the smaller portions attributable to shipping, administrative, etc. If these taxes go into production costs in the normal manner, their actual deduction will be deferred to the extent that they comprise a part of the inventory costs. To avoid this deferment, some sulphur producers make a separate calculation to assure that all taxes assessed to the period are deducted in full in the current period, so that none remain in inventory as otherwise would be the case.

Accounts Required

The accounts required are different from those of a manufacturing or mercantile concern. Particularly the account classification must be so ordered that production costs are readily obtained, and yet there is no burden distribution problem to contend with as in the case of a manufacturer of more than one product.

One production cost control account on the General Ledger would serve very well with all detail carried in a subsidiary ledger. Such an account would operate solely as a control, however, and nothing more, due to the variety and volume of the production cost detail. Practically the same purpose of simplicity is achieved by using several General Ledger accounts to assemble and carry the major groupings of cost and, at the same time, a major workable analysis would be obtained. These nine General Ledger accounts are included in the accompanying chart of accounts and are listed here, as follows:

Plant Production Costs
Field Production Costs
Service and Mechanical Production Costs
General Production Costs
Royalty
Production Taxes
Property Taxes
Depreciation
Depletion

It will be noted that these account titles are self-explanatory, and the grouping of elements under each is a natural one. Each of these major accounts represents substantial production cost factors with the first four named serving as control accounts. It is a simple matter to summarize the totals of these nine accounts to obtain the total production cost for the period desired, whether it be for a month or for the year to date. Likewise a production cost statement can be readily drawn off, either in a condensed form by using these General Ledger accounts alone, or in as much detail as necessary by supplementing these control figures by the detail from the subsidiary cost ledger.

The total production cost for the period, divided by the number of tons produced during the period, provides the cost per ton produced. A comparative analysis is obtained by computing the cost per ton for the various factors represented by the General Ledger accounts. Comparisons are made on a month-to-month basis, on a year-to-date basis, and on a budget basis, i.e., comparing actual cost results with the expected.

In like manner, the shipping costs can be drawn off and utilized for the purpose of arriving at the delivery cost per ton of sulphur sold. The aggregate of these delivery costs are frequently referred to as Freight and Handling.

It should be borne in mind that sulphur inventory will not be limited to the stocks at the mine. Besides the consignments stocks already mentioned, there are likely to be stocks at intermediate storage points to facilitate prompt delivery, particularly for those customers situated long distances from the mine. At any month end, sulphur stocks may be at various points in transit. The accounts, therefore, must be classified to provide a practical analysis for obtaining the Freight and Handling Cost components at various stages as the sulphur moves from mine to customer.

Since space does not permit going into cost accounting any further, the reader who wishes to pursue this special phase is referred to the chapter on Cost Accounting in Sulphur Mining in

the *Handbook of Cost Accounting Methods,* edited by J. K. Lasser.

Land in fee, leaseholds, or mineral rights, or some combination of these three, provide title to the producer for the sulphur in place. Although land is not subject to write-off, there may be large value involved due to the presence of sulphur. Good accounting requires a separation in the accounts of the value of the surface rights from the value of the rights to the mineral in place. The

Chart of Accounts

for the balance sheet

Acct. No.	Current Assets
101	Petty Cash
105	Cash in Bank—Payroll
110	Cash in Bank—General
115	Marketable Securities
120	Accounts Receivable—Customers
121	Notes Receivable—Customers
122	Accounts and Notes Receivable Officers and Employees
125	Reserve for Bad Debts
130	Inventory—Sulphur
	Fixed Assets
140	Land
141	Mineral Rights
142	Leaseholds
143	Exploration
144	Development
145A	Reserve for Depletion
150	Plant and Equipment (Control)
150A	Reserve for Depreciation
170	Investments
	Deferred Assets
175	Material and Supplies
176	Fuel
180	Prepaid Insurance
181	Prepaid Taxes
182	Prepaid Royalty
183	Other Deferred Charges
184	Organization Expense
185	Goodwill

Acct. No.	Current Liabilities
200	Accounts Payable—Trade
210	Notes Payable—Short Term
219	Income Tax Payable—Current Year
220	Income Tax Payable—Prior Years
221	Withholding Taxes Payable
222	O.A.S.I. Taxes Payable
223	Federal Unempl. Ins. Taxes Payable
224	State Unempl. Ins. Taxes Payable
225	Real and Personal Property Taxes Payable
226	Other Taxes Payable
230	Basic Royalty Payable
231	Contingent Royalty Payable
240	Accrued Expenses
	Fixed Liabilities
250	Notes and Mortgages Payable
255	Bonds and Debentures Payable
	Capital
260	Capital Stock—Preferred, Authorized
261	Capital Stock—Preferred, Unissued
265	Capital Stock—Common, Authorized
266	Capital Stock—Common, Unissued
270	Surplus—Capital
275	Surplus—Earned
279	Profit and Loss

value of the mineral rights is exhausted as the sulphur is withdrawn and, obviously, where such values are depleted, there should be recognition of this depletion in the accounts.

Sulphur mined is subject to percentage depletion for income tax purposes, but this deduction does not necessarily represent the actual cost depletion of the investment in the mineral rights and leaseholds on the books; i.e., depletion on the books will not usually coincide with depletion taken on the income tax return.

The Internal Revenue Code provides for special treatment for income tax purposes of exploration costs and also for development costs. There is a separate option for treatment in the case of each, and the election will have an important bearing on the manner in which these costs are handled in the accounting for a particular producer.

Chart of Accounts

for the Statement of Operations

Acct. No.	
	Revenue Accounts
280	Sulphur Sales
281	Sales Discounts
282	Sales Returns and Allowances
289	Other Income
	Cost of Sales
290	Cost of Sulphur Sold
	General Overhead
300	Loading and Shipping Costs (Control)
400	Sales Expense (Control)
500	Administrative and General Costs (Control)
600	Other Expense
	Production Costs
1000	Plant Production Costs (Control)
2000	Field Production Costs (Control)
3000	Service and Mechanical Production Costs (Control)
4000	General Production Costs (Control)
5000	Royalty
5020	Production Taxes
5040	Property Taxes
5060	Depreciation
5080	Depletion

Chart of Accounts

for the subsidiary ledger

Acct.
No.

300 Loading and Shipping Costs (Control)

Loading

310 Blasting
320 Loading Equipment Operation and Maintenance
330 Sundry Loading Costs
340 Depreciation, Insurance, Taxes

Shipping

360 Freight and Handling
370 Depreciation, Insurance, Taxes
390 Traffic Department Expense

400 Sales Expense (Control)

(The breakdown under this control will follow the usual pattern and can be as simple or as detailed as desired.)

500 Administrative and General Costs (Control)

(The breakdown under this control will follow the usual pattern and can be as simple or as detailed as desired.)

1000 Plant Production Costs (Control)

1100 Water Supply Expense
1200 Water Treating Expense
1300 Heat Exchangers Expense
1400 Fuel Equipment Expense
1500 Power Plant Expense
1950 Plant Department Supervision

2000 Field Production Costs (Control)

2100 Drilling Sulphur Wells (Well No.)
2150 Equipping Sulphur Wells (Well No.)
2200 Re-equipping Sulphur Wells (Well No.)
2250 Drilling Equipment Maintenance
2300 Field Automotive Equipment Expense
2350 Field Floating Equipment Expense
2400 Field Warehouse Expense
2450 Relay Stations Expense
2500 Mine Water Control Expense (Dredging, mud lines, mud wells, etc.)
2550 Sulphur Cleaning Expense (Vapor boiler, etc.)
2600 Bleed Water Disposal Expense
2650 Field Roads, Bridges, and Ramps Maintenance
2700 Field Pipe Lines Maintenance
2750 Sulphur Storage Bins Maintenance
2800 Casing Recovery (Charge with pulling costs; credit with value of salvaged pipe.)
2950 Field Department Supervision

3000 Service and Mechanical Production Costs (Control)

3100 Blacksmith Shop Expense
3150 Machine and Welding Shop Expense
3200 Sheet Metal Shop Expense
3250 Carpenter and Paint Shop Expense
3300 Automotive Equipment Expense
3350 Floating Equipment Expense
3400 Cranes, Draglines and Hoists Expense
3450 Electric Transmission System Maintenance
3500 Telephone System Maintenance
3550 Service Water System Expense
3600 General Roads, Bridges and Ramps Maintenance
3650 General Docks and Wharves Maintenance
3700 Canals Maintenance
3950 Service and Mechanical Department Supervision

4000 General Production Costs (Control)

4100 Main Warehouse Expense
4150 Hospital and Medical Expense
4200 General Insurance
4250 Workmen's Compensation Insurance
4300 General Tax Expense
4350 Payroll Tax Expense
4400 Sundry Sales
4450 Cost of Sundry Sales
4950 Production Office Expense

The four digit codes are suggested for the production cost accounts in order to provide adequate numerical flexibility, because under the subsidiary accounts there will be secondary sub-accounts which are actually job numbers or work orders. This is illustrated by the accompanying abbreviated sample of one workable solution for the subsidiary cost ledger. Should the quantity of numbers prove insufficient for a particular subsidiary account, almost unlimited expansion can be obtained by resorting to sub-numbers or alphabetical suffixes.

The code expansion herein advocated is an alternative method, in a sense, to the work order system described in the *Handbook of Cost Accounting Methods,* edited by J. K. Lasser. In a sense, it is said, because basically the two methods are similar; they accomplish the same purpose by different routes.

The table is an example of how the Cost Ledger will be set up and maintained with a separate page provided for each subsidiary account. Standard loose-leaf columnar analysis ledger sheets can be used (to save the cost of printing special forms) with standard

PRODUCTION COST LEDGER

Major Account: 1000 Plant Production Costs

Subsidiary Account: 1100 Water Supply Expense

Date	Item	Folio	Total	1101 Operating Labor	1102 Operating Supplies	1103 Electric Power	1104 Building Maint.	1105 Equipt. Maint.
7/31	Acc. Total		$8,000.00	$5,000.00	$530.00	$600.00	$270.00	$1,600.00
8/31	P/R Distr.	JE101	855.00	735.00			22.00	98.00
"	Mtl Distr.	JE102	189.00		89.00		40.00	60.00
"	E/P Distr.	JE103	55.00			55.00		
"	Mo. Total		1,099.00	735.00	89.00	55.00	62.00	158.00
"	Acc. Total		9,099.00	5,735.00	619.00	655.00	332.00	1,758.00

post binders. For the left-hand side, obtain sheets of about 14 columns in addition to date, item, and folio spaces. The right-hand side can have 16 or 18 columns since the date, item, and folio need not be repeated, and line numbers will serve as horizontal guides. Posting is started from the left-hand page and continued over on to the right-hand page when such additional analysis columns are required. If the double page still does not provide enough columns, the insertion of short sheets allows for an unlimited number of columns. A new ledger is begun every year.

The same type of subsidiary ledger can be used for Plant and Equipment as well as for other control accounts requiring subsidiary support. In certain cases, such as for Plant and Equipment, new ledgers would not be begun annually; the original one would be continued year after year.

Operating Statements

The statement of operations, or the profit and loss statement, is important in showing, in financial summary, the activity of the company for a particular period. This should be prepared monthly for the information of management. The statement would appear as follows:

Statement of Operations

(Period)

Sulphur sales
  Less: Freight, handling, and allowances
    Net sales
Cost of sulphur sold
  Inventory at beginning of period
  Sulphur produced
    Total
  Inventory at end of period
    Cost of sulphur sold
Gross profit on sulphur sold
  Selling expense
  Administrative and general expenses
Net profit on sulphur sold
  Other income
  Other deductions
Net profit before income and E.P. taxes
  Less: Estimated income and E.P. taxes
Net profit after taxes

There is usually an established F.O.B. mine price for sulphur. Since physical delivery is rarely, if ever, taken at the mine, billing

is customarily on a delivered basis with the producer bearing all delivery costs. For that reason, sulphur sales in the statement of operations are usually expressed at a delivered basis, and delivery charges are deducted to arrive at net sales.

By means of perpetual inventory records for sulphur stocks, it is possible to prepare an accurate statement of profit each month. To the inventory (quantity and value) at the close of the previous month, the production is added. The tons of sulphur produced are obtained from the daily statistical reports of production. The cost of production is obtained from the Production Cost account or from the sum of several production cost accounts which are kept for purpose of analysis and for better classification of the subsidiary accounts. The quantity of sulphur sold is obtained from the statistical records of sulphur billed.

To eliminate month-to-month fluctuations, it is desirable to use the cumulative cost per ton of sulphur produced for the year to date, rather than to compute each month separately as an independent period, for thereby a consistent relationship will be maintained toward the annual figure.

In addition to the inventory at the mine, there is the inventory at various storage points plus the consignment stocks. All these must be included at their respective costs which include cumulative components of Freight and Handling as the location of the sulphur moves away from the mine toward its destination. The following example will illustrate.

Inventory Computation

June 30

	At Mine		Storage Point A		Storage Point B	
	Tons	Cost	Tons	Cost	Tons	Cost
Inventory—Jan. 1	220,000	$3,300,000	25,000	$ 425,000	30,000	$ 660,000
Production—6 Mos.	110,000	1,567,500				
Total	330,000	4,867,500				
Shipments from mine	120,000	1,770,000	120,000	1,770,000		
Total			145,000	2,195,000		
Freight and Handling				240,000		
Total			145,000	2,435,000		
Shipments from A			115,000	1,931,300	115,000	1,931,300
Total					145,000	2,591,300
Freight and Handling						725,000
Total					145,000	3,316,300
Shipments from B					125,000	2,858,900
Inventory—June 30		$3,097,500		$ 503,700		$ 457,400
Tons—June 30	210,000		30,000		20,000	

The balance sheet, like the statement of operations, presents no surprises. It follows the orthodox pattern, and in summary form would appear as follows:

BALANCE SHEET
(Date)

ASSETS

Current Assets
Cash in banks and on hand
Marketable securities—at cost (market $________)
Accounts receivable—customers
Notes receivable—customers
Accounts and notes receivable—others
Total receivables
Less: Reserve for bad debts
Sulphur inventory

Fixed Assets
Land, rights, exploration, and development
Less: Reserve for depletion
Plant and equipment
Less: Reserve for depreciation
Investments

Deferred Assets
Supplies
Prepaid and deferred charges

LIABILITIES AND CAPITAL

Current Liabilities
Accounts and notes payable
Accrued taxes
Accrued royalty payable
Accrued expenses

Fixed Liabilities
Notes and mortgages payable
Bonds and debentures payable

Capital Stock
Preferred authorized
Less: Unissued
Common authorized
Less: Unissued

Surplus
Capital surplus
Earned surplus

BOOKKEEPING METHODS

The General Ledger. This record is posted from the cash receipts journal, the voucher register, the sales journal, and the general journal, as soon after the close of the month as possible. Cash receipts can be posted immediately, the voucher register as soon as

all the current month's invoices are entered, the sales journal as soon as all billings for the current month are entered.

The General Journal. This record can either be a book or a file of registered journal vouchers. Some of the important entries will be for:

Payroll distribution	Accrued royalty
Material and supplies distribution	Accrued production tax
Fuel distribution	Accrued property tax

with the various adjusting and valuation entries to include all of the properly apportioned expenses and amortized charges up to the end of the current month.

The Cost Ledger. This record was discussed previously.

Accounts Receivable. A subsidiary ledger is maintained with a separate account for each plant of customer.

Accounts Payable. This is represented by the open items in the voucher register applicable to the current month and prior. Or, if invoices are vouchered and paid simultaneously, all invoices dated in the current month, but entered in the voucher register after the last day of the current month, constitute the accounts payable as of the current month's close. That is, cash account is credited and vouchers payable debited for the total disbursements in the *calendar* month; whereas vouchers payable account is credited and distribution debited with the total of vouchers in the *fiscal* month.

The Plant and Equipment Ledger. Due to the large and varied investment in fixed assets, this is an important detailed record. A new construction account is found helpful for accumulating costs to relieve the permanent subsidiary accounts of detail. If different depreciation rates are in use, or are adopted, the accumulated reserve should be kept with its respective asset. However, a composite rate is practical and highly desirable in the interest of simplicity.

Various supplementary and statistical records are maintained in a manner similar to those kept in other well-organized business units, such as the insurance register, perpetual inventory records for material and supplies, fuel, etc. Personnel records must be complete and up-to-date. Daily time cards are signed, foreman approved, and show the account numbers by hours for distribution as well as for payroll purposes. A perpetual inventory of sulphur stock shows the complete movement of sulphur in and out in tons (2,240 lbs.) and pounds for each location. A separate record is kept for sulphur stock on consignment.

ACCOUNTING FOR THE TEXTILE CONVERTING INDUSTRY

By

SAUL C. HERTZ *

BRIEF DESCRIPTION OF BUSINESS

When applied to fabrics the word "textile" is synonymous with "woven" and any treatise on the subject of textile accounting would, therefore, embrace a broad field covering all woven fabrics. These will include principally cotton, wool, rayon, and silk. With reference to each of these commodities there are numerous operations performed leading to their ultimate salability. The silk industry, for example, includes a throwing plant, weaving, finishing, and printing, converting, and jobbing. While in some instances all of these functions may be performed by one organization operating as a complete unit, they are more commonly distributed among specialists, conforming to the trend of the present era. The advantages of operating as separate units are obvious. Even when one organization is large enough to perform all operations, separate companies are formed to operate independently with stock ownership held by a holding company or by the same individual-stockholders. It will be readily realized that much can be written regarding the accounting for a vast industry but this chapter is to be confined to only one phase, the converting operation.

The converter, as the name implies, is concerned with the conversion of raw woven cloth, known as greige (pronounced *gray*) goods, into finished goods. Most commonly he purchases greige goods from a weaving mill, then orders them delivered to a dyeing and finishing plant where they are completed and delivered to a designated warehouse ready for sale to his customer. The converter may carry plain goods or printed fabrics, or both. However, the industry is today so highly specialized that most converters limit their lines to certain types of fabrics, catering to specific in-

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dustries. In a few instances well capitalized companies maintain departments catering to several industries using their goods, but no company carries a complete line of textiles for all industries.

The following plan of organization is commonly used by converters:

ORGANIZATION CHART

Stockholders

Directors

President — Secretary — Treasurer

Sales
Salesmanager
Salesmen

Purchasing
Converter
Clerks

Administrative

Credit
Manager
Clerks

Accounting
Controller
Billing General
Clerks

Shipping and Stockroom
Manager
Clerks

For proper and efficient management it has become common in recent years to install a system of budgets. The budget is arranged in two parts, one is for operations, and the other for finances. It is suggested that a forecast for the ensuing year be prepared first. An ordinary profit and loss statement is drawn up with estimated figures of sales and expenses. Many items included therein will be known in advance, for example, rent and executive salaries. When the operating forecast is completed the figures are then available from which the financial forecast can be prepared.

Beginning with the cash investment, the cash receipts and disbursements by months are projected as are all of the current assets and liabilities. When completed, inconsistencies may be revealed. It may be found that the required volume of sales is too great for the capital investment, or that the expenses are too high compared with the sales permitted by the capital. Many other ratios are revealed that foretell whether the venture is able to advance or whether certain changes in the structure are necessary.

When the forecasts have been completed, adjusted, and revised to a satisfactory state, the budget system can be installed to provide for short periods of advance planning for cash, sales, merchandising, etc. To be of practical value the budget must be flexible and used as a guide with discretion.

Theory of Accounts

In many respects accounting principles applied to the converting business are similar to those used in other commercial fields. There are some exceptions, however, peculiar to this industry. First the converter seeks to glean from his records results of operations and his financial status, as well as statistical and financial facts, to guide him in the efficient management of his business. Secondly, he is concerned with the movement of his goods, market fluctuations, and economic effects on the industry.

The design and installation of the accounting records need involve no complicated or intricate books or accounts. Nevertheless broad elaboration of accounts that allow for extensive distribution of income and expenses, and cost accounts, as well as real accounts should be applied.

Since a considerable part of the merchandise is usually held at mills, dyers, and warehouses rather than on the premises of the converter, it is essential that comprehensive inventory records be maintained. These are segregated into records of greige goods on hand, greige goods at mills and at dyers, and finished goods on premises or at warehouses and dyers. Any satisfactory system to fit the needs of the particular company may be used. These records should be maintained with precision, permitting detailed description of the goods, quantities, and colors as well as prices and extensions. Provision should also be made for commitments of goods purchased for future delivery as well as contracts for goods sold in advance.

Many converters have found it expedient to cost the sales. The method used is simple and the benefits are obvious. They are enabled thus to prepare monthly operating statements with a fairly accurate determination of net profits. The inventory is figured monthly since the cost of goods sold is known and, therefore, subtracted from the sum of the inventory at the beginning plus purchases and other costs. Since the calculated inventory is at cost it is wise to set up in the statement a reserve for inventory fluctuation. Such a reserve may be computed in any one of several ways. A percentage of sales may be applied and at the end of the season when an actual inventory is taken the reserve can be reversed against any markdown sustained. A second procedure is to use a

percentage of the inventory amount, disposing of the reserve at the close of the season in the same manner. In the costing of sales the question arises as to which cost to use if raw materials have been purchased at different prices. One method is based on the first-in, first-out principle. The second, and preferable one, is to use the average cost which can be derived from the perpetual inventory records kept in money values as well as units.

Cost of Sample Cards, Swatches, Designs, and Engraving

These items are important elements of cost and expense. Expenditures for designs and engravings include layout cost, employment of designers, purchase of free-lance patterns, engravings, and incidental expenses. These expenditures apply to a large extent to printed fabrics and should be considered as a direct cost. The amount to be expended should be estimated and appropriated for the season; similarly the number of yards expected to be produced should be projected. By this device a standard cost of cents per yard is determined. On the records entries are posted to an appropriate deferred cost account for these expenditures. The Standard Cost account is then debited and the Deferred Cost account credited. The balance of the latter would then represent unabsorbed cost. Should the balance be a credit it would represent overabsorbed cost and be adjusted.

The cost of swatches, sample cards, and advertising material is a selling expense. It is best, however, to amortize this cost on a monthly prorata basis. For the cloth used a credit is given to Goods Manufactured account and Expense is debited.

Calculation of Cost

In addition to the cost of greige goods, finishing, freight, and cases, the converter in calculating cost of goods manufactured allows for shrinkage and seconds as well as the cost of designing and engraving. Shrinkage is the loss in yardage sustained when the goods are dyed and finished. The correct method of estimating the loss is to divide the cost per yard by the loss in shrinkage subtracted from 100 per cent. To illustrate: suppose the cost of greige goods is 10 cents per yard, and shrinkage is 2 per cent; by dividing 10 cents by 98 per cent, we arrive at 10.204. If we were simply to add 2 per cent shrinkage the additional cost would have been only

.20 cents instead of .204 cents. These slight fractions frequently cause the success or the failure of the converter, for the margin of profit in the industry is small. The extent of shrinkage loss varies in accordance with the different types of materials, from a small percentage on cotton to as much as 12 per cent on certain rayons.

With respect to loss due to seconds, the attitude of the converter is to usually disregard it since such goods have a demand of their own. Sales are generally made at cost. The practice is frequently to disregard them as sales but rather to deduct the sales and selling costs from the cost of goods manufactured.

Accounts Required

The usual accounts of a commercial enterprise will be found in the books of a converter and possibly certain different titles. As a guide to a complete chart of accounts, the following balance sheet and profit and loss statement have been prepared:

Balance Sheet

Exhibit A

Assets

Current Assets
- Cash in Banks
- Petty Cash Fund
- Accounts Receivable
- *Less:* Reserve for Discounts
    - Reserve for Bad Debts
        - Net Accounts Receivable
- Merchandise Inventory
    - Total Current Assets

Fixed Assets
- Furniture, Fixtures and Equipment
- *Less:* Reserve for Depreciation
    - Total Fixed Assets

Other Assets
- Unexpired Insurance
- Deferred Expenses
    - Total Other Assets

Total Assets

Liabilities and Capital

Current Liabilities
- Notes Payable—Bank
- Accounts Payable

Accrued Taxes and Expenses
Total Current Liabilities

Capital
Common Stock—Authorized and Issued
100 Shares—Par Value $100
Per Share
Surplus and Undivided Profits
Total Capital and Surplus

TOTAL LIABILITIES AND CAPITAL

STATEMENT OF INCOME AND PROFIT AND LOSS

EXHIBIT B

	Amount	Percentage of Net Sales
Sales		
Less: Sales Returns and Allowances		
Net Sales		
Less: Discounts on Sales		
Net Income from Sales		
Cost of Goods Sold		
Inventory—Finished Goods at Beginning		
Add: Cost of Goods Manufactured—Per Schedule B–1		
Total Goods Available for Sales		
Deduct: Inventory Finished Goods at End		
Cost of Goods Sold		
Gross Profit		
Expenses		
Selling Expenses—Per Schedule B–2		
Shipping and Delivery Expenses—Per Schedule B–3		
General and Administrative Expenses—Per Schedule B–4		
Credit and Collection Expenses—Schedule B–5		
Total Expenses		
Net Operating Income		
Other Income		
Interest Earned		
Discounts Earned		
Bad Debts Recovered		
Total Other Income		
Total Income		
Deductions from Income		
Interest and Anticipation Allowed		
Provision for Bad Debts Reserve		
Total Deductions from Income		
NET PROFIT FOR THE PERIOD		

STATEMENT OF INCOME AND PROFIT AND LOSS

SUPPORTING SCHEDULES

Statement of Cost of Goods Manufactured
Schedule B–1

Inventory—Greige Goods at Beginning
Add: Purchases of Greige Goods
Total Available for Conversion
Deduct: Inventory of Greige Goods at End
Cost of Greige Goods Converted
Dyeing, Finishing and Printing
Designing and Engraving
Freight and Cases
Tubes
Testing

TOTAL COST OF GOODS MANUFACTURED

Schedule of Selling Expenses
Schedule B–2

Salesmen's Salaries
Commissions
Traveling
Entertaining
Advertising
Social Security Taxes
Sundries
Sample Cards, Swatches

TOTAL SELLING EXPENSES

Schedule of Shipping and Delivery Expenses
Schedule B–3

Salaries
Freight Out
Paper and Twine
Social Security Taxes

TOTAL SHIPPING AND DELIVERY EXPENSES

STATEMENT OF INCOME AND PROFIT AND LOSS

SUPPORTING SCHEDULES

Schedule of General and Administrative Expenses
Schedule B–4

Executive Salaries
Office Salaries
Social Security Taxes
Rent
Telephone and Telegraph

Light
Stationery and Printing
Office Supplies
Postage
Insurance
Depreciation of Furniture, Fixtures and Equipment
Dues and Subscriptions
Accounting Fees
Legal Fees
Taxes

TOTAL GENERAL AND ADMINISTRATIVE EXPENSES

Schedule of Credit and Collection Expenses
Schedule B–5

Executive Salary
Other Salaries
Social Security Taxes
Dues and Subscriptions
Legal Fees
Stationery and Printing
Office Supplies
Telephone and Telegraph
Postage

TOTAL CREDIT AND COLLECTION EXPENSES

BOOKKEEPING METHODS

The converter does no manufacturing on his premises and his problems therefore concern primarily the buying and selling of goods. These functions can be most efficiently and profitably performed by constant reference to records that have been adequately and accurately maintained. The records most frequently used are stock books and converting records. With this information available policies as to quantities and color assortments of the different styles of cloth can be determined.

The General Ledger provides for the accounts previously listed on the balance sheet and income statements. It is wise to divide the ledger by index sheets in the same order that the accounts appear on the financial statements, in order to facilitate their preparation. The accounts should be indexed and loose-leaf sheets used. In each section account numbers should be left blank, allow additional pages to be inserted as the occasion requires.

The Accounts Receivable and *Accounts Payable Ledgers* are in the usual double-entry form. Where the needs of the business re-

quire them, bookkeeping machines and suitable ledger cards are used. Each customer's account should be complete, recording the name, address, credit rating, maximum credit accommodation the credit department wishes to extend, and the debtor's bank. Frequent references must be made to these cards for credit checking purposes. The terms of sales vary according to the type of goods handled. Most cotton fabrics bear the terms 2/10/60, or 2 per cent discount payable in 70 days. Silk and rayon fabrics are sold on various bases: (1) net 60 days, (2) net 70 days, (3) 8 per cent tenth of the following month, (4) 6 per cent 70 days, and (5) 2 per cent 70 days.

The accounts receivable ledgers are constantly used for collections and for passing credit judgment. It is always wise to provide accurate, readily clear information therein regarding payments of the accounts. When the payments are posted the date thereof should be marked in small figures in the folio column as well as in the date column, and then in the folio column on the debit side adjacent to each invoice paid. This method will quickly show for each invoice the date the payment was made. When a remittance is received from which a deduction that is not to be allowed is taken, and it is desired to retain the remittance, credit should be given the account to balance the payment against the charges. Simultaneously a new charge should be made with all the facts stated thereon in order that only one open item is carried.

Orders received should be listed in a *sales register* with full details. A copy is then sent to the shipping department to be filed after it has been approved and accepted by the department head. One copy should be retained in the office and the cost of the goods recorded thereon. When the shipping department reports the shipment of the merchandise the invoice is drawn with several copies as follows:

Original for customer's invoice
First duplicate as a customer's receipt
Second duplicate as a bookkeeping posting copy
Third duplicate as a salesmen's commission copy
Fourth duplicate as a credit department collection copy
Fifth duplicate as an inventory, costing and stock record

The system of costing sales can best be operated by making an analysis of the sales each day and applying the cost as shown by

cost calculation cards. As there might have been various prices at which greige goods could have been purchased it is essential to refer to the inventory records to obtain the average cost to date for this purpose. The sales are totaled for the day and entered in an appropriate *statistical register*. The cost is entered similarly, thereby providing the results of operations daily. In calculating the gross profit thus determined these factors must also be considered: (1) sales returns and cost of sales returns, (2) discount on sales, and (3) allowances on sales.

It must be borne in mind that the inventory calculated by deducting the cost of goods sold from the aggregate of the inventory at the beginning plus purchases will be at cost. Since this does not allow for possible fluctuation in value or for a reserve for damaged goods, obsolescence, or deterioration, it is advisable to set up a reserve for fluctuation.

The use of machinery for these records could be used to much advantage with preference for the punch-card apparatus. The same equipment can be used for figuring salesmen's commissions and statistical sales data.

With reference to the record of salesmen's commissions, a controlling account should be opened in the general ledger and individual salesmen's accounts in a subsidiary ledger. Each invoice should bear the name of the salesman to be credited. Any sales made by the management where no salesman is to be credited should be labeled "house." By using the punch-card system the sales can be summarized monthly by salesmen and rates of commission applied. The summary is entered in a salesmen's register from which the credits are posted to their individual accounts. Without the use of punch-card equipment extra copies of the invoices may be used and assorted, listed and credited in the salesmen's register. The totals of this register are posted monthly as a credit to Salesmen's Control account and a debit to Commissions Expense account.

ACCOUNTING FOR THE VEGETABLE OIL INDUSTRY

By
DOUGLASS M. BARROWS *

BRIEF DESCRIPTION OF BUSINESS

Vegetable oils are used in large volume as basic raw materials by a number of different kinds of industries. Among the users of large quantities are manufacturers of soap, paints, varnishes, prepared foods, pharmaceuticals, and confectionery. Some of these manufacturers produce their own oils, but they are generally supplied by crushers.

Oils are obtained from a great variety of seeds and nuts. They are generally produced by pressing the oil from the raw materials by screw expellers, hydraulic presses, or other mechanical devices. Solvent processes which produce oil by distillation or chemical reactions are used to some extent. The residue left after the removal of the oil is a cake or meal which is used principally as feed for cattle or poultry, as it generally has a high protein content. The residue is also beginning to find a place in the field of plastics.

The oil-bearing seeds or nuts are purchased at their points of origin, domestic or foreign, where contact with the growers is made either directly by agents of the crusher, or through brokers. Most purchases are made on the basis of actual outturn weights, C.I.F. crusher's mill, or nearest delivery point, and the price is adjusted to allow for quality, percentage of moisture, and admixture of foreign matter. Storage is in bins until the material is drawn out for crushing purposes.

Cleaning and crushing operations to a large extent are performed by automatic machinery in continuous operation. After leaving the expellers or presses, the oil is led through filters and bleachers to storage tanks where it remains until it is required for shipment or

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for blending or processing to meet specifications of some particular customer. The meal or cake is carried by conveyers to bins where it remains until mixed, ground, and sacked for sale.

Sales of oil are generally made to the trade through brokers and to a very large extent are for future delivery. Certain seeds and nuts, for example, flaxseed, are seasonal. When they are, the crusher must buy his entire year's supply of raw material within the period of a few months against sales spread over a year or more. Others, for example, copra, the dried meat of the coconut, are available at a fairly constant rate of supply throughout the year, but purchases are ordinarily made for future delivery due to the fact that most seeds and nuts in this category come from abroad. With both purchases and sales being made for delivery far in the future, it becomes very necessary for the crusher to watch his position in the market daily and even hourly. Hedging is widely used by crushers to protect themselves from the effect of market fluctuations between dates of purchase of raw materials and sale of oil.

Theory of Accounts

Individualized profit and loss accounts have been developed by different crushers, whose details will vary with the commodity being crushed. For instance, the solvent process used in soya oil production will require manufacturing accounts different from those used by a cottonseed crusher, which will, in turn, differ from those of a coconut oil mill. These differences, however, are superficial; fundamentally all require the same basic information, namely, (1) costs of raw material, (2) costs of oil production, (3) costs of processing or refining oil, (4) costs of meal or cake, (5) shipping costs of oil and meal, and (6) administrative costs.

Since raw materials are commonly purchased long prior to physical receipt, and sales are generally made for long-term future delivery, some provision must be made to keep the management constantly advised of the current position marketwise. Record sheets on which each purchase and sale can be recorded just as soon as it is consummated are advisable for this purpose. These sheets should show in greater or less detail the weight of the following: (1) raw materials purchased and average price, (2) oil and meal in raw materials and in inventory, (3) oil and meal sold for future

delivery and average price, and (4) oil and meal still to sell (long position) or oversold (short position).

It is also essential that separate information as to costs of production of oil from each type of raw material be kept. Certain crushers handle only one commodity, but many crush several kinds of seeds or nuts throughout the year. Since raw material costs and sales prices of oil and meal vary widely with the different commodities, it is necessary that accurate manufacturing cost records be maintained with regard to each type.

Meal or cake is a by-product of oil crushing. Its market price is mainly governed by causes beyond the control of the crusher. It is quite customary to arrive at the book costs of cake and oil by accumulating all costs of production, including full costs of raw material and all direct and indirect manufacturing costs, and from this figure deducting the value of meal or cake produced. This value is estimated at a figure sufficiently below the current market price of meal to allow for future shipping and selling expense. The balance remaining after this deduction is then considered to be the cost of oil produced.

Accounts Required

In setting up profit and loss accounts for a crusher, the above elements must be borne in mind and the accounts modified to suit the requirements of the particular business. The principal items to be developed are:

1. Analysis of sales which is broken down by commodities. It should show weights sold as well as prices.

2. Costs of sales which is also broken down by commodities produced or raw materials crushed. These costs should include:
   a. Costs of raw material delivered to the mill
   b. Costs of preparation, such as cleaning, preheating, and grinding to size.
   c. Costs of crushing which should be to some extent departmentalized as between different machines or processes through which the material passes and should be broken down to show such items as direct labor, manufacturing supplies and power
   d. Costs of processing, blending, or boiling oil which should also be departmentalized and broken down as above
   e. Costs of grinding, sacking, and piling meal or cake which will be found useful if broken down
   f. Costs of storage of finished oil or meal which is included by certain crushers with their delivery costs

3. Cost of selling which should also be broken down by commodities as far as possible
    a. Salesmen's salaries and expenses
    b. Advertising
    c. Brokerage (frequently shown as a direct reduction of sales revenue)
    d. Shipping and handling costs

4. Mill overhead which consists of certain items not easily susceptible of being allocated to any particular commodity
    a. Mill office expenses including clerks' and timekeepers' salaries
    b. General, including such expenditures as maintenance of buildings and grounds, janitorial work
    c. Technical expenses, such as maintenance of laboratory and consulting engineers and chemists

5. General overhead which is the usual executive and managerial overhead of any business, covering such items as
    a. Central office expenses
    b. General management and executive expense
    c. Research and experimentation

These groupings can be broken down into an infinite variety of schedules in order to show any desired information, from either a financial or a statistical viewpoint.

There are several peculiarities in the crushers' accounts. It would be well first to call attention to the question of valuation of raw material crushed during the period, as well as that remaining in inventory. There are wide differences of opinion as to this valuation. These seem to be due principally to the varying conditions under which the raw materials are purchased, and the point at which title passes. In many instances title does not pass until actual physical delivery is made. In others title passes by transfer of documents when the commodity may be in warehouses anywhere in the world or possibly while afloat on a steamer. In still other instances delivery may be made and the material crushed weeks or even months prior to the time when the price is set.

All these instances require special handling and practically every form of recognized inventory valuation can be found in use in the industry. Some crushers follow the first-in, first-out method based on material actually on hand at the mills. Others use an average cost method, basing it on all material purchased, whenever its situs. Some attempt to trace specific purchases of raw materials to specific sales of oil on the theory that from the point of view of marketing these balance each other physically.

sorbed into production costs on a basis of tonnage of raw material to be crushed during this estimated period. In this manner no one accounting period is burdened with excessive repair items which are intended to carry over for a considerable time.

Accurate scale weights of raw material and of finished products are most essential. It is an impossibility to take a physical inventory of raw materials or of meal. Oil may be measured in carefully calibrated tanks, but raw materials and meal are commonly kept in bulk in bins whose capacity frequently exceeds 10,000 tons. Material purchased on delivered weights is dumped into the bins while other material is being drawn off at the bottom for crushing purposes. This material for crushing, of course, is also being carefully weighed. Meal goes over scales and then into storage bins. Deliveries are again by weight. Perpetual inventory records are thus easily obtained, but actual physical inventory by count or measure is generally out of the question except for oil and sacked meal. However, when a bin is finally completely emptied, the perpetual inventory record should be adjusted to take up the overage or shortage disclosed.

Designation and Build up of Accounts

Perhaps the most simple method of designating accounts is by a combination of letters and numbers, the letters indicating the material crushed and the numbers denoting the various manufacturing accounts. A company crushing five different sorts of seeds or nuts would have its cost distribution sheets show six groups of columns, one for each commodity and one for the accumulated total. Each group would consist of Total through Last Month, Total Year to Date, Total This Month. The accounts would then be listed by departments. A sample breakdown would be about as follows:

Department	100	Preparation
	101	Removing from storage
	102	Conveyers to mill
	103	Scales
	104	Crushers
	105	Heaters
	106	Conveyers to expellers
Department	200	Expellers
	201	Screens
	202	Force feeds
	203	Expeller operation

	204	Oil conveyers to filters
	205	Meal conveyers to bins
	206	Foot conveyers to settling tanks
Department	300	Filtering
	301	Circulating tanks
	302	Pumps
	303	Filtering operations
	304	Bleaching tanks
	305	Conveyers to storage tanks
Department	400	Cake and meal
	401	Scales
	402	Conveyers to grinders
	403	Grinder operations
	404	Sacking operations
	405	Piling sacked meal
Department	500	General factory service
	501	Steam plant (heating only)
	502	Janitors
	503	Fire prevention
	504	Sewer system
	505	Maintenance of grounds

Expenses under the above headings are then distributed to the commodity crushed during the period and department totals accumulated. In case only one or two raw materials are handled during the period, the other columns would remain blank.

Accounts such as the above can most easily be broken down into classifications by the timekeeper in the mill office as to direct labor, with accompanying social security taxes and workmen's compensation premium, maintenance work and repairs, power used, and manufacturing supplies. The departmental totals thus accumulated at the mills are then spread on the manufacturing cost sheets so that totals of cost are readily obtainable. Using a method such as this for a base, it becomes a simple matter to expand it to fit any particular combination of seeds or nuts handled.

For cost control purposes it is customary for the crusher to figure in cents per hundred pounds, or per ton of raw material crushed. A full mill run, at normal capacity, on a specified commodity is used as the basis of calculation. All costs are totaled and the final result divided by the weight of material crushed, thus giving the crushing cost per unit of weight. At the close of each accounting period it is also advisable to break this figure down by departments and then by accounts. Constant comparison of this cost per unit of weight in each account will easily and quickly lead to discovery of irregu-

larities in operation and in cost no matter how small, and to their prompt correction.

After distributing the direct manufacturing costs as above, a good method is to follow direct costs on the same sheet with the mill overhead costs. These would be distributed among the various commodities as already discussed, that is, on some predetermined ratio, such as tonnage crushed or machine hours.

The other expenses of the business are chiefly those of a customary nature, being composed of selling expenses and general overhead. Selling expenses, which include delivery from storage to carriers, are susceptible of being broken down to a considerable degree, not only by character of expense, but also by commodities, and a cost sheet similar to the one used for manufacturing costs is therefore indicated. Again, a combination of letters and figures will be found useful designations. Accounts might follow in this senquence:

Department	1000	Oil delivery
	1001	Oil pumps
	1002	Scales
	1003	Pipe lines
	1004	Cooperage
	1005	Tank cars
Department	2000	Meal delivery
	2001	Conveyers
	2002	Scales
	2003	Carloading
Department	3000	Sales department
	3001	Executive—sales-manager and clerical work
	3002	Salesmen's salaries
	3003	Salesmen's expenses
	3004	Advertising—broken down as to circulars, radio, newspaper, etc.

General overhead including central office expenses with salaries of office force, executive salaries, accounting expense, and other items of similar nature are generally treated as being "below the line" and applicable to the business as a whole, and not assignable to any particular activity.

Assets and liabilities of the business are of the usual character. Certain contingent liabilities, however, should be recognized. A crusher may contract to purchase an unknown volume of raw material to be grown on a certain acreage by a producer at a price to be fixed at some date in the future. If he is purchasing materials,

for example, copra, coming from the Orient, he will probably have large unused merchandise letters of credit outstanding. He may have definite contracts to deliver oil far in the future which is still to be crushed from materials not yet in existence. All of these and others of like character are legally enforceable obligations, the only customary excuse for noncompliance being some form of force majeure. These contingent liabilites are often far larger than current liabilities and must be recognized. They are far too indefinite to show on the balance sheet except as footnotes but good management requires that they always be carefully considered. It is largely for this purpose that the record sheets referred to early in this article are kept. These advise the management constantly as to the status at the moment regarding future transactions, and thus constitute one of the most valuable records of the business.

Bookkeeping Methods

Crushers' books of account and systems ordinarily include the following records:

The General Ledger is of the usual form, containing records of asset, liability, capital, surplus and income, and expense accounts. These should, as far as possible, be control accounts only. If the various expense accounts are spread through the ledger, it will become awkward and cumbersome to handle. Wherever a control account is used in the general ledger, a supporting ledger with complete analysis is, of course, indicated.

Accounts Receivable and Accounts Payable Ledgers take the customary form, being detailed records of accounts with customers and with supplies of materials and service.

The Purchases and Sales Record is a special book in which is entered all purchases of raw material as made with the estimated weight of seeds or nuts, estimate of amount of oil and meal recoverable therefrom, together with entries of sales made showing estimated amount and value of each sale, and a final figure showing the oil and meal still to sell, or oversold. This is adjusted at least monthly to allow for over or short receipt of raw materials, actual production of oil and meal as compared with the estimate and over or short deliveries of oil and meal.

The Hedging Record is an up-to-the-minute record of all pur-

chases or sales, which shows quantity purchased or sold, position and price of each transaction, together with running totals.

Inventory Records are best kept at the mill office daily and reported periodically to the head office. They are checked there by taking inventory at the start of the period, adding total receipts of raw material or weighed production of oil and meal, and deducing raw material crushed or sold in original form, and oil and meal sold. The final totals should agree with the running totals kept at the mill office.

The Fixed Assets and Depreciation Ledger is used at the plant to show fixed assets and their location. A ledger showing the details of working out depreciation figures is also valuable.

Payroll Records are used in compliance with the wage and hour laws and to conform to requirements of the Social Security Acts and the various state unemployment acts, as well as for workmen's compensation acts. These records have become a vital part of all business. No special treatment is needed by crushers, the ordinary records for this purpose being sufficient.

Tank-Car Records are kept since most oil is shipped in tank-car lots and many crushers either own or lease tank cars for this purpose. Complete records of the movements of these cars are essential for mileage earnings, and for information necessary in planning shipping schedules. If the business is sizeable, this is a most important account book.

As far as possible transactions are posted from original sources; weight certificates, both as to receipts and sales, being by far the most important. The books of original entry need be very few, a cash book combining receipts and disbursements, columnarized for distribution of items, a journal for recording totals accumulated from various sources and for postings affecting the accounts in general, with possibly an accounts payable distribution journal. These are all of the books essential to the business; the others mentioned are for information and analysis only.

ACCOUNTING FOR WHOLESALERS

By

NATHAN E. JORDAN *

BRIEF DESCRIPTION OF BUSINESS

The wholesaler occupies an important position in our system of distribution. Despite recent predictions that the wholesaler, as a distinct entity, will eventually be eliminated from our distribution system through the absorption of its functions by the manufacturer, the Census of American Business, for , indicated that wholesale sales aggregated approximately 30 billion dollars for the United States as a whole.

The wholesale business is a typical example of a trading business. The wholesaler is engaged in buying and selling goods without processing. The service performed by him may be summarized briefly as follows:

1. *Assembling and Warehousing of Merchandise*—In this respect the wholesaler serves a dual purpose. He performs a storage service for the manufacturer, buying heavily during seasonal production and storing the merchandise until required, and for the retailer, since in very few instances would it be economically feasible for the retailer to carry the quantity and variety of merchandise required.

2. *Reduction of Transportation Costs*—Inasmuch as the wholesaler buys in large quantities, generally in carload lots, he thus reduces the transportation costs from manufacturer to retailer. Furthermore, he usually maintains a delivery service covering the area in and around the city in which he is located. Such delivery service, though reflected in the wholesale price, is by far more economical than could be provided by the manufacturer.

3. *Extension of Credit*—The wholesaler is better situated to extend credit to retailers, than is the manufacturer. The whole-

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saler operates in a limited area and is in a position to know his customers, as well as the prevailing credit conditions, much better than the manufacturer, who serves a wide territory. By virtue of this fact, a greater number of retailers receive credit, and the manufacturer's credit problems are simplified, inasmuch as his dealings are limited to relatively few wholesalers.

Wholesalers are divided into groups, such as, dry goods houses, produce houses, and hardware houses, according to the various classes of retail stores. The average wholesaler is of medium size, with a capital ranging from $50,000.00 to $100,000.00, although the major portion of the business is done by concerns with a capital of from $100,000.00 to $500,000.00.

Selling is generally handled by salesmen who call upon the retail trade. In a few cases, for example, produce and butter and eggs wholesalers, a major portion of the sales are made from the floor.

The trading margin is small, so that the turnover of inventory must, of necessity, be rapid.

Theory of Accounts

Generally, the accounting for profit or loss of wholesalers presents no radical departure from the ordinary accounting for trading concerns. There are accounting problems and difficulties peculiar to the various groups of wholesaling, yet, since the functions of each are virtually the same, the methods of control are similar.

Four basic problems exist: (1) control of inventory, (2) control of selling and delivery costs, (3) control of accounts receivable, and (4) financial control.

1. *Control of Inventory*—The proper control of inventory in a wholesale concern is of major importance. Through proper control—economical buying, adequate stock supply, and more rapid turnover are made possible. The acme of control is undoubtedly the perpetual inventory plan. Under this method a detailed record, in units, is kept of all merchandise purchased and sold. It enables the wholesaler to completely analyze his stock, at any time, and reveals unprofitable and slow-moving merchandise. However, in many small concerns the cost of maintaining such a system would be prohibitive.

Control by monthly physical inventory is feasible only when the

type of stock carried lends itself, at a minimum cost, to such inventory taking; but in the average concern this is not the case. Physical inventory must necessarily be taken periodically, but in itself it is not generally considered a method of control.

The method which enjoys the widest use, in practice, is that of costing out sales. An account is carried with each type or class of merchandise, and the opening inventory and all subsequent purchases are charged to these accounts. During the course of the operating period (monthly or every four weeks) all sales are costed out, in a column of the sales book or on the duplicate invoice, and at the close of the period the total of the column, or the invoice figures, serves as a basis for a journal entry charging Cost of Sales and crediting the various merchandise accounts. Semiannually or annually an actual physical inventory is taken, and the Cost of Sales account is adjusted for any variation. Usually, this variation is quite small if the costing of sales has been done carefully. Thus an adequate dollar control of inventory is available which reveals from month to month any excessive accumulation of inventory in any department or type of stock.

2. *Control of Selling and Delivery Costs*—The wholesale house is primarily a selling organization, and selling and delivery expense constitute the major cost of operations. Therefore, a maximum of control is indicated. Primarily, a definite ratio between sales volume and sales expense should be set up and maintained. As regards advertising, catalogue expense and other indirect sales expenses, these should be budgeted in advance and the budget strictly adhered to.

The direct sales expense, in the main, consists of salesmen's salaries and commissions. While a positive stand cannot be taken as to salesmen's compensation, the most successful plan and producer of greatest volume is usually one wherein the salesman has enough incentive to better performance. From a practical viewpoint, the so-called bonus plan of compensation is the most desirable. This plan sets a minimum salary and a minimum sales quota. Sales made in excess of the quota result in a graduated increase in the percentage of commission allowed the salesman on the excess sales. Thus, an incentive is provided, and the sales expense is automatically adjusted to the sales volume. In conjunction with the foregoing, a weekly or monthly prize is offered to the

salesman obtaining the highest sales figure for the period, and a competitive spirit is thus created which also tends to increase volume of sales.

Delivery costs, while more easily controlled, require an adequate organization and records. The central location of the merchandise warehouse, within the territory covered, provides for economical routing of deliveries and easy accessibility.

Cost of operation of the delivery equipment itself can be brought down to a minimum by maintaining a detailed record of the mileage covered, gasoline and oil consumption on a miles-per-gallon basis, repairs and depreciation on a cents-per-mile basis, tire cost per mile, etc. In this manner, comparable operating costs of various types of delivery equipment are obtained and the most economical selected.

In order to keep close control of drivers' time on deliveries, and eliminate soldiering on the job, the use of automatic time registering instruments, which provide a complete record of traveling time and waiting time, is suggested. At the close of each day, these records should be closely scrutinized; and all waiting periods shown thereon in excess of the time required for dropping off deliveries will require explanation.

"Broken-package" selling is another factor to be considered in reducing selling and delivery costs, as well as handling costs. By decreasing the percentage of commission applicable to broken-package sales (as compared to complete cases, or whatever unit is maintained) the salesman will be discouraged from writing this type of business; and by placing a premium on the sales price of such sales, the customer will be encouraged to buy full units, in order to effect a saving.

3. *Control of Accounts Receivable*—In wholesaling, when the margin of profit is small, a rapid turnover of receivables is desirable. Although no hard-and-fast rule can be laid down as to how this can be accomplished, certain suggestions are in order. The trend among retailers has been towards payment from statements. Therefore statements should be in the hands of the retailer early in the month, a systematic procedure should be in force for the collection of slow and delinquent accounts, and an analysis of past-due accounts should be kept currently for follow-up.

4. *Financial Control*—The question of financial control resolves

itself into a question of budgeting. Without the use of budgets, the operations of a wholesale concern become haphazard, lacking in coordination and fraught with peril. Inasmuch as the major portion of the wholesaler's investment is retained for working capital, and the capital turnover is rapid, the flow of funds must be watched with extreme care. By the budgeting of sales, of purchases, and of expenses, the wholesaler can determine well in advance whether there is going to be a cash shortage. This can be provided for by arranging to secure the necessary additional capital. If the capital is not forthcoming, changes in the program can be made to avoid the projected shortage. Thus, budgeting fulfills a function which, though not a substitute for good management, is nevertheless a useful and necessary adjunct to it.

Accounts Required

Departmentalization of the various products sold by a wholesaler, and the direct allocation to each department of the operating expenses, has been attempted with varying degrees of success. Where a limited number of items are sold, departmental breakdown of expense, by item, is possible. But in the average wholesale concern, where multiplicity of items is the rule rather than the exception, this breakdown is not feasible. We should definitely strive for a breakdown of the various type of sales and the cost of these sales, but as to the distribution of operating expense, this must remain an individual problem for each wholesaler.

In classifying the accounts, the use of a simple numerical scheme is found to be of definite advantage. The following is an analysis of the operating accounts required by a wholesaler:

100—Income Accounts (Broken down by product)

- 110—Sales
- 120—Sales Returns and Allowances
- 130—Sales Discount (generally not common)
- 140—Cost of Goods Sold
- 150—Cost of Sales Returned
- 160—Freight in
- 170—Purchase Discount
- 180—Freight Out

200—1000 Expense Accounts:

200—Selling Expense

- 210—Sales Manager's Salary
- 220—Salesmen's Salaries

230—Salesmen's Commissions
240—Salesmen's Expenses
250—Traveling Expense
260—Advertising
270—Catalogues
280—Miscellaneous Selling Expense

300—Buying Expense
310—Buyers' Salaries
320—Buyers' Expenses
330—Miscellaneous Buying Expense

400—Shipping and Handling Expense
410—Shipping and Handling Salaries
420—Supplies
430—Miscellaneous Shipping Expense

500—Delivery Expense
510—Delivery Salaries
520—Gasoline and Oil
530—Tires
540—Repairs
550—Depreciation—Trucks
560—Insurance—Trucks
570—Supplies
580—Truck Licenses and Taxes
590—Miscellaneous Freight and Delivery Expense

600—Occupancy Expense
610—Rent
620—Light and Heat
630—Depreciation—Buildings
640—Taxes—Land and Buildings
650—Insurance—Buildings and Stock
660—Warehouse Salaries
670—Janitorial Service
680—Maintenance and Repairs
690—Miscellaneous Occupancy Expense

700—Credit and Collection Expense
710—Credit Expense
720—Collection Expense
730—Bad Debts

800—Office and Accounting Expense
810—Salaries—Office
820—Telephone and Telegraph
830—Stationery, Printing and Postage
840—Depreciation—Office Equipment
850—Miscellaneous Office Expense

900—General Expense
910—Executive Salaries
920—Legal Expense
930—Auditing Expense
940—Miscellaneous General Expense

Interest income and expense, taxes other than payroll, and all other accounts arising from nonoperating income and expense may have account numbers designated to them in the 1000 series.

Payroll taxes and compensation insurance, should be allocated to their respective salary groups, and their accounts numbered to correspond.

Operating Statement

A typical statement of profit and loss follows:

WHOLESALE COMPANY

Statement of Profit and Loss for the Period ————

Gross Sales
  Less: Sales Returns and Allowances
Net Sales
Cost of Goods Sold
Gross Profit
Operating Expense:
    Selling
    Buying *
    Shipping and Handling
    Delivery
      Less: Charges to Customers for "Specials"
    Occupancy
    Credit and Collection
    Office and Accounting
    General
  Total Operating Expense
  Net Operating Profit
  Nonoperating Income and Expense
  Net Profit for the Period

An analysis of the determination of the Cost of Goods Sold, by the inventory method, should also be appended as follows:

Cost of Goods Sold:
  Purchases
  Freight In
    Total
  Less Purchase Discount
    Net Purchases
    Plus or minus differential between opening and closing inventories

* While it may be argued, theoretically, that buying expense should be included in the Cost of Goods Sold section, practically it is handled as an operating expense.

Balance Sheet

Assets

Current
- Cash in Bank
- Petty Cash
- Notes Receivable—Trade
- Accounts Receivable—Trade
  - Less: Reserve for Doubtful Accounts
- Merchandise Inventories
- Investments (Short term)

Deferred
- Prepaid Expenses
- Salesmen's Advances

Fixed
- Land and Buildings
- Delivery Equipment
- Fixtures
- Office Equipment
  - Less: Reserves for Depreciation

Total Assets

Liabilities and Capital

Liabilities
- Notes Payable—Banks
- Notes Payable—Trade
- Accounts Payable—Trade
  - Less: Reserve for Discounts
- Payroll Accrued
- Commissions Payable
- Other Payables
- Taxes Accrued

Total Liabilities

Capital

Surplus

Total Capital and Surplus
Total Liabilities, Capital and Surplus

Bookkeeping Methods

The bookkeeping system of the wholesaler includes the following records:

The Cash Receipts Journal is a detailed record of all cash received from customers and others.

The Cash Disbursements Journal usually serves merely as a check register, inasmuch as all transactions involving the disbursement of cash are vouchered.

The Voucher Register contains a complete record of all pur-

chases, expenses, and adjustments. These transactions are vouchered individually and then recorded in the voucher register. The register is sufficiently columnarized to facilitate posting to the detailed accounts found in the general ledger.

The Accounts Receivable Ledger is the detailed record of transactions with customers. It serves as the basis for periodic statements.

The Delivery Equipment Ledger contains an account with each truck, used as a means of determining depreciation charges and insurance coverage. This account may be extended to provide the following monthly statistical information when a fleet record is not maintained: miles per gallon (gas and oil), tire cost per mile, repair cost per mile, depreciation cost per mile, and total average cost per mile.

Payroll Records conform to current state and Federal requirements.

The General Ledger controls all other ledgers and records; contains the record of assets, liabilities and capital, and also the detailed income and expense accounts.

Entries to these records are made in the usual manner and in keeping with good accounting practice. The use of the voucher register and the consequent elimination of the accounts payable ledger is especially recommended, inasmuch as the sources of purchases are many and varied, and the medium provides for a facile breakdown thereof.

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